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BALTIMORE, MARCH 2, 1911.

SNAKES ALIVE!

Closing hours of Congress suggest the
misfortune in St. Patrick's birthday be-
ing fifteen days distant.

GALVANIZING FOR RECIPROCITY.

How many editors of newspapers to
whom have been submitted gratuitously
for publication articles intending to
prove the value of the Canadian recip-
rocity to their respective States have
taken the trouble to inquire the where-
from of such gratuities or to compare
the arguments for one State with the
arguments for other States?

STUDYING SOUTHERN IRON AND STEEL MAKING.

A number of capitalists from Canada,
New England and representatives of
English financiers are now in the South
making a personal study of the iron and
steel-making advantages of the Chat-
tanooga and Alabama districts. One of
the satisfactory features in connection
with investigations of this kind is that
those who study the iron-making re-
sources of the South for themselves al-
ways come away tremendously im-
pressed with the possibilities of that
section. Since the development work
in Alabama undertaken a few years
ago by the United States Steel Cor-
poration after its purchase of the Ten-
nessee Coal, Iron & Railroad Co., there
has been no other new large activity of
iron and steel interests in that district.
A steel plant has been completed at
Gadsden, and a number of furnaces in
various parts of the State have been
reconstructed, and some large coal de-

velopments made, but these have not at
all been commensurate with the very
great possibilities of the district. Some
important negotiations are pending
looking to the development of big en-
terprises in and around Chattanooga,
and a number of strong capitalists have
become identified with interests look-
ing to the development on a large scale
of that territory. The men who are
now in the South, and especially the
representatives of English and Cana-
dian capital, while giving especial atten-
tion to two properties about which there
are rumors of consolidation, namely, the
Alabama Consolidated and the South-
ern Iron & Steel Co., will necessarily be-
come acquainted with the entire re-
gion and with its opportunities for
larger investments.

ARKANSAS RICE.

About seven years ago it was demon-
strated that prairie land in Arkansas
would yield under irrigation abundant
crops of rice. In consequence 2,400,000
bushels, worth \$1,000,000 at the farm,
were harvested last year, a quantity
ten thousand times as great as the crop
ten years ago. This pre-eminent suc-
cess, showing forth the great possibili-
ties of rice-growing in Arkansas, is re-
sponsible for a plan contemplated by
C. B. Thweatt of DeVall's Bluff and a
member of the Legislature, for the con-
version of 100,000 acres of the Grand
Prairie into an irrigation improvement
district for rice-culture. His plan looks
to the building of canals from the White
River, at a cost of about \$900,000, to
be met by a bond issue running thirty
years. About 2000 acres of this land
are already devoted to rice-culture un-
der a system of private wells which,
according to Mr. Thweatt, cost about \$25
per acre to install and from \$10 to \$12
an acre to maintain, whereas the gen-
eral irrigation system planned would
cost about \$9 per acre for installation
and from \$3 to \$5 an acre for mainte-
nance. The land thus treated could
have been bought not many years ago
for about \$2.50 an acre. It is now
worth from \$30 to \$65 an acre, because
of its adaptability to rice culture. Mr.
Thweatt is quoted in the *Arkansas
Gazette* as stating that there is some
opposition in the prairie district to his
plan. But it is worthy of study as bear-
ing upon the future of agriculture in
Arkansas.

Mr. H. F. Smith, vice-president and
traffic manager Nashville, Chattanooga
& St. Louis Railway, Nashville, Tenn.,
writes to the MANUFACTURERS RECORD:

We fully recognize the merits of your val-
uable publication and the good it is ac-
complishing in exploiting the resources and
products of the South.

James P. Allen of San Angelo, Tex.,
writes to the MANUFACTURERS RECORD:

I can truthfully say your paper has done
more for me in the work I am organizing
(that is, to manufacture my own inventions)
than any other magazine I have ever had
anything to do with.

THE HARRIMAN RAILROADS AS AN OBJECT-LESSON FOR SOUTHERN RAILROADS.

The Harriman railroads have, it is announced, decided to largely increase
their advertising expenditure during the year, and have set aside \$1,250,000
for this purpose, thus demonstrating that the policy long pursued by these roads,
with its marvelously fruitful results, is to be continued. It could hardly be
otherwise. When once a railroad system, or any other great business organiza-
tion, has after a few years of successful and comprehensive expenditure tested
the value of publicity, there is no likelihood of its ever discontinuing it; or, at
least, if unwise management should result in decreased advertising expenditure,
it will immediately be followed by a falling off in business. That is the universal
testimony of those who have tried it.

The wonderful progress of the territory tributary to the Harriman System,
and the equally wonderful prosperity of that system are necessarily, to a large
extent, due to the broad advertising campaign which for years has marked its
policy.

The accompanying table, compiled by the MANUFACTURERS RECORD from the
official reports of railroads to the Interstate Commerce Commission, throws
a great light upon railroads and railroad management. The pre-eminent position
of the Union Pacific road, with its \$805,000 expenditure for advertising for 1910,
or an average of \$128 per mile, and the expenditure by the Southern Pacific, a
part of the same system, of \$680,402 for the year, or an average of \$70 per mile,
are striking illustrations of the recognition of the managers of these two roads—
part of one great system—of the power of advertising, and are likewise the clear-
est possible reasons for the amazing development which has marked the country
tributary to them.

Railroad.	Mileage.	Average amount per mile.	Amount expended for advertising.
Long Island.....	400	\$133 00	\$53,170*
Union Pacific.....	6300	128 00	805,000
Lackawanna.....	950	117 00	111,000
Lehigh Valley.....	1433	103 00	148,000
Pennsylvania Railroad (proper).....	3841	95 44	366,582*
Lake Shore & Michigan Southern.....	1662	92 00	152,808*
New York Central.....	3782	88 10	333,192*
Chicago & Alton.....	1000	84 00	83,780
Southern Pacific.....	9750	70 00	680,402
Boston & Maine.....	2300	67 00	155,000
Reading.....	1022	65 50	67,000
Big Four.....	1982	62 10	123,201*
Denver & Rio Grande.....	2540	60 00	153,555
Northern Central.....	448	51 00	22,882*
Richmond, Fredericksburg & Potomac.....	88	48 35	4,255
Queen & Crescent (Part of System).....	645	45 00	29,051
Michigan Central.....	1746	44 30	77,359*
Baltimore & Ohio.....	4435	44 00	198,000
Northern Pacific.....	5765	44 00	255,516
Chicago & Northwestern.....	7600	43 00	330,000
Rock Island System.....	8043	42 50	342,149
Atchison.....	9916	42 00	415,768
Erie.....	2400	41 00	98,000
St. Louis Southwestern.....	1450	37 00	54,000
Frisco.....	5000	34 00	169,645
Missouri, Kansas & Texas.....	3072	33 00	101,285
Delaware & Hudson.....	843	32 48	27,387*
Kansas City Southern.....	788	32 00	25,000
Louisville & Nashville.....	4550	31 43	143,000
Illinois Central.....	4550	30 75	139,910
Nashville, Chattanooga & St. Louis.....	1230	30 33	37,302
Florida East Coast.....	583	30 00	17,587
Western Maryland.....	543	26 65	14,475
Wabash.....	2500	26 00	67,000
Mobile & Ohio.....	1114	25 69	28,722
Chesapeake & Ohio.....	1937	22 65	43,874
Soo Line.....	3533	20 00	70,000
Norfolk & Western.....	1951	19 63	38,400
Missouri Pacific.....	6775	19 35	131,132
Chicago, St. Paul, Minneapolis & Omaha.....	1738	16 76	29,140
Seaboard.....	3000	16 00	48,500
Central of Georgia.....	1915	14 12	27,043
Texas Pacific.....	1500	14 00	26,400*
Atlantic Coast Line.....	4500	13 00	58,751
Georgia Southern & Florida.....	395	12 40	4,856
Southern Railway.....	7000	11 00	76,000

* Figures for 1909. All others for 1910.

When one contrasts the growth of the Pacific Coast through the power of
this advertising, in population and in wealth, with the progress of other sections,
he necessarily gets a clearer view of the reasons why the Pacific Coast and the
territory tributary to these roads have been leading the United States in material
advancement.

In contrast with the expenditure last year of \$1,485,000 by the Union Pacific

and the Southern Pacific for advertising purposes, the showing made by most of the railroads of the South is pitifully small. Against an average expenditure of \$128 per mile by the Union Pacific, the Southern Railway shows an average of only \$11 per mile, the Atlantic Coast Line \$13, the Seaboard Air Line \$16, and other leading Southern roads gradually on up from these extremely small figures to \$19 and \$20, and up in one or two cases to \$30, the Louisville & Nashville having expended \$31.43 per mile, though on a portion of its system the Queen & Crescent did spend as much as \$45 per mile. While the Louisville & Nashville expenditure is less than one-fourth as much per mile as the Union Pacific, it is yet nearly three times as much as the Atlantic Coast Line and nearly twice as much as the Seaboard.

A striking illustration of what Southern railroads are *not doing*, as compared with what the Harriman roads are doing in the way of advertising, is given in the following table:

Railroad.	Mileage.	Average amount expended per mile.	Amount expended for advertising.
Seaboard	3,000	\$16 00	\$48,500
Central of Georgia.....	1,915	14 12	27,043
Atlantic Coast Line.....	4,500	13 00	58,751
Georgia Southern & Florida.....	395	12 40	4,856
Southern Railway.....	7,000	11 00	76,000
Nashville, Chattanooga & St. Louis.....	1,230	30 33	37,302
Mobile & Ohio.....	1,114	25 69	28,722
Chesapeake & Ohio.....	1,937	22 65	43,874
Norfolk & Western.....	1,951	19 63	38,400
Queen & Crescent (Part of System).....	645	45 00	29,051
Louisville & Nashville.....	4,550	31 43	143,000
Total for these Southern roads.....	28,237	\$21 93	\$535,487
Union Pacific.....	6,300	\$128 00	\$805,000
Southern Pacific.....	9,750	70 00	680,402
Total for these two Harriman roads.....	16,050	\$98 00	\$1,485,402

The two Harriman roads named, aggregating 16,050 miles, expended last year \$1,485,000 for advertising, while eleven of the main railroads of the central South, from Virginia to Mississippi, having an aggregate mileage of 28,237, expended only \$535,489. If we omit the Louisville & Nashville, which makes a much better record than most of the other Southern roads, though even that does not expend for advertising one-third as much as it ought to do, the other roads named have a total mileage of 23,787 and expended \$392,499. In other words, with a mileage nearly four times as great as that of the Union Pacific these ten Southern roads expended considerably less than one-half as much as the Union Pacific expended for advertising purposes.

In this connection a few facts should be borne in mind. It was but a few years ago when the Union Pacific was a bankrupt railroad—bankrupt physically and financially, and when much of the country through which it passed was undeveloped. It should also be remembered that the Union Pacific and Southern Pacific pass through hundreds of miles of dreary desert which can never be developed or populated to any great extent. If this vast desert region should be eliminated the amount expended per mile for the good territory tributary to these roads would be far in excess of the figures named.

On the other hand, in the South there is no desert country. There is practically no land tributary to the 28,000 miles of railroad owned by the eleven systems named that is not susceptible to the highest development. There are natural resources beyond the power of man to estimate tributary to these lines. Development has scarcely begun. There are limitless possibilities in soil and in the development of all the material resources of this region. Here is a country of which earth has no equal, for it possesses a variety of advantages that can nowhere else be duplicated. It is worthy, therefore, of the widest possible publicity. It is worthy of the broadest work that the greatest financial and railroad powers of the world can give, for the proper cultivation of this field would bring larger returns than have been won for themselves and their country by the Union Pacific and Southern Pacific in their matchless work in behalf of the development of their territory.

Some railroad officials operating in the South undertake to say that the Southern roads cannot carry on the same comprehensive advertising as the Western and Pacific Coast roads, because they own no land for sale or for colonization purposes. This is an exceedingly narrow point of view. There is scarcely a section in the South which has not its own pre-eminent natural advantages worthy to be made known throughout the land. There are more reasons why the territory tributary to the Southern Railway, the Atlantic Coast Line, the Seaboard and other Southern roads should be broadly and heavily advertised for travel and for business than there are why California and the Pacific Coast generally should be advertised by the Union Pacific and the Southern Pacific. The opportunities are equally as great. The reasons demanding this advertising are greater. One of these reasons is that the South needs this kind of advertising far more than the Pacific Coast. Moreover, it needs that the railroads shall show to the world their faith in the South. It is the faith of the creative spirits and the broad-minded men connected with the Pacific Coast roads that has given faith to the world in that section. Now the Pacific Coast is getting the benefit

of the accumulated work of years of faith as shown in advertising. The South needs that its railroads shall wake up to do their part. Thus far they have done very little as compared with the opportunity. Until the owners, the men who control the securities of Southern roads, come to an appreciation of the situation, not much more can be expected than is now being done, and that is pitifully little. The officials of Southern railroads are necessarily handicapped, because the security holders are constantly demanding the smallest possible expenditures and the largest possible income. That is a false basis on which to operate at present.

The policy which is illustrated in the action of the Union Pacific in its great advertising campaign, carried on year after year, is typical of the policy shown in its recent decision to spend \$75,000,000 for the double-tracking of this road. Faith begets faith. Works beget works. If the owners of Southern railroads, having more at stake than any other people, show limited faith and narrow vision in the development of their roads and in expenditures for attracting attention to that country, the effect necessarily minimizes the initiative and the liberality of other Southern organizations and Southern business men in advertising the South and in seeking its development. We have said that the owners of Southern roads, the financial powers centered in New York, are largely responsible for this situation, because they have not given to the officials of Southern roads a free hand in expenditures of this kind. They have not had the broad vision of a Harriman with his ability to stimulate the officials of his road to do the great broad things that have been done. And yet there are some railroad officials in the South who themselves have no conception of the opportunities tributary to their lines, or of the work that ought to be done. Some time ago one of the leading officials of a 4000-mile Southern road said that his people were not interested in attracting the attention of the manufacturers of the country to their territory, because there were no particular manufacturing advantages along his system. And he said this seemingly in all good faith, though there are a hundred cities along his road that could be made great industrial centers, and some of them are already active, pushing, manufacturing points.

A broader vision is needed on the part of the security holders of Southern roads, as well as on the part of many of the railroad officials of the South. If the owners of Southern railroads, many of whom do not seem to have a full comprehension of the opportunity and needs of the times, could be so aroused that their vision would broaden, we might then see some such policy adopted in this section as has prevailed in the Harriman System. The results, both to the roads and to the country, would be the same as those that have been enjoyed by the Harriman roads and the territory through which they operate. The amazing prosperity of the Harriman roads has been due not so much to the inherent advantages of the country through which they operate, as to the broad-minded work and the liberal expenditure, the faith with works, of such men as Harriman. The South offers opportunities far greater than the country tributary to the Harriman roads. The success of that system could be more than duplicated in the South under the same character of railroad development work by the financial powers that control these lines. If Morgan & Co., dominating as they do the Southern Railway, should say to its officials that regardless of immediate financial needs that road should duplicate the expenditure of the Union Pacific for the next five years and put over \$800,000 a year into advertising, the result would be beyond calculation. Certainly no one familiar with the two regions would for a moment deny the fact that the wonderful territory from Washington to the Mississippi tributary to the Southern Railway in natural resources of soil, climate, mineral and agricultural potentialities is greater than the territory tributary to the Union Pacific. If Henry Walters, who controls the Atlantic Coast Line and the Louisville & Nashville, and the owners of the Seaboard, Chesapeake & Ohio and the Norfolk & Western, would wake up to their opportunity and begin a campaign rivaling that of the Pacific Coast roads, then would they help to make the South come into its own.

Southern railroad officials, as a whole, cannot make this move, so essential to the best development of the South and to the railroads of that section, unless these financial powers that control them back them up. As a matter of fact, the owners of Southern roads, or the dominant powers in Southern roads, do not seem ever to have comprehended the possibilities of the South, and their niggardly expenditures for advertising purposes in making known the resources and advantages of this section show that they do not yet grasp the opportunity and their responsibility. When Mr. Harriman bought the Central of Georgia he said to the people of Georgia that under certain legislative conditions he would undertake to show them what a real railroad is. Harriman died all too early for the good of the South, for if he had made of the Central of Georgia a real railroad, such as he made of the Union Pacific, and utilized the opportunity to set the pace for railroad development on the same broad lines that he set it on the Pacific Coast, then he would have given to all other railroad owners a vision of the South's possibilities and of the opportunity for duplicating in this section what has been done on the Pacific Coast.

Possibly the figures presented here for the first time, showing the average amount expended per mile of road of a large number of roads, typical of the

whole railroad system of the country, will do something to arouse the South, the railroad officials of the South, and especially the financial interests that dominate these roads. The recent Interstate Commerce Commission decision against an advance in railroad rates does not in the slightest change the situation nor lessen the responsibility of Southern railroads to advertise broadly through the great daily papers, the farm papers and the magazines of the whole North and West just as the Pacific Coast roads have been doing and are now doing.

THE COTTONSEED INDUSTRY.

One of the most dramatic facts in Southern manufacturing history is the growth of the cottonseed crushing industry. Though cottonseed, except that required for planting, and in some cases for use as a fertilizer, was generally regarded in the South before the war as a nuisance, to be gotten rid of as easily as possible, some of it had been crushed for oil as early as 1834, and it had attained such a standing in the later fifties that the discovery of petroleum in Pennsylvania was viewed as a possible factor in reducing the price of cottonseed oil. Revival of the textile industry thirty years ago was accompanied by the placing of the cottonseed crushing industry upon a constantly expanding basis. But as late as 1880 there were but 45 cottonseed oil mills in the United States yielding crude products to the value of \$7,691,000. In the past 30 years, however, the number of establishments has increased to between 800 and 900, producing to the value in the neighborhood of \$110,000,000. The crude products in 1890 had a value more than double that of 1880, and the progress since then is outlined in the accompanying table:

Value of Cottonseed Mill Products.

States.	1890.	1900.	1904.	1909.
Alabama.....	\$1,293,989	\$2,985,890	\$5,769,061	\$8,714,000
Arkansas.....	1,881,668	3,188,812	4,939,919	7,709,000
Florida.....			261,864	514,000
Georgia.....	1,676,196	8,064,112	12,539,899	17,084,000
Kentucky.....		4,683,343	5,697,549	
Louisiana.....	1,573,626	7,026,452	13,187,606	4,497,000
Mississippi.....	2,406,628	6,681,121	12,587,147	15,469,000
North Carolina.....	324,746	2,676,871	3,748,789	6,199,000
South Carolina.....	927,772	3,103,425	5,462,818	10,170,000
Tennessee.....	2,594,741	2,880,041	3,743,927	5,083,000
Texas.....	3,262,596	14,095,324	18,638,815	25,034,000
Total South.....	\$15,960,962	\$55,395,391	\$87,637,396	\$100,464,000
Missouri.....		\$874,355	\$969,259	\$648,000
Oklahoma.....		\$874,355	\$3,108,883	\$5,180,000
All other.....	\$3,374,985	\$2,455,886	\$4,662,053	\$1,246,000
United States.....	\$19,335,947	\$58,726,632	\$96,407,621	\$107,538,000

All other States include, in 1890, Florida, Kentucky, New York, Ohio and Rhode Island; in 1900, Florida, Illinois, Kansas, Missouri, Ohio and Rhode Island; in 1904, Illinois, New Jersey, Ohio, Rhode Island and Virginia, and in 1909, Illinois, Kansas and Kentucky.

The increase in the value of products was from \$19,335,947 in 1890 to \$58,726,632 in 1900, or by \$39,390,685, equal to 203 per cent.; to \$96,407,621 in 1904, or by \$77,071,674, equal to 398 per cent., and to \$107,538,000 in 1909, or by \$88,202,053, equal to 456 per cent.

The value of products in 1909 was nearly fifteen times as great as the value in 1880. This value, be it remembered, is of crude products only, \$55,328,000, representing 158,328,500 gallons of oil; \$40,493,000, representing 1,674,500 tons of meal and cake; \$7,711,000, representing 1,269,200 tons of hulls, and \$4,006,000, representing 175,512,100 pounds of linters. These crude products were derived from 3,827,300 tons of seed, costing the crushers \$78,112,000. What the value in the aggregate of the ultimate products of the cottonseed is may hardly be determined accurately, but it is indicated in a consideration of the products into which the crude outputs enter.

From linters is derived material for batting, carpets, rope and twine, cheap yarns and upholstery stuff. Ashes of burnt hulls have a high fertilizing quality, and ground hulls and cottonseed meal mixed make a fine stock feed, while the hulls are also used for the

manufacture of paper. The meats of cottonseed yield cake and meal used for fertilizer and for feed, and crude oil dividing into soap stock and summer yellow oil. This oil is a basis for a number of products, including soap-stock and soap, winter yellow oil, stearin, from which are derived butter oil and salad oil and hard compounds containing hog lard, oleo, stearin and cottonseed oil. As salad oil, it is frequently used in place of olive oil, even if some olive oils are not really partly or wholly the product of the cotton seed. Maine sardines, in reality small herring, are packed in cottonseed oil, and the oil is also used in treating olives for preservation, for lubrication, in mixing putty and in painting, and to some extent as an illuminant.

Steadily the uses to which it may be put are increasing in number, especially since the beginning of a campaign of publicity under the auspices of the Interstate Cottonseed Crushers' Association. But it is interesting to note that more than fifty years ago the value of cottonseed as a source of material for lubricating, painting, soap-making, cattle feeding, cooking and fertilizing was quite well recognized.

THE RAILROAD RATE DECISION.

Now that the wave of excitement following the railroad rate decision of the Interstate Commerce Commission has rolled by, it becomes more apparent that the railroads as a whole did not, probably, entertain serious expectations that it would be other than what it was. And, it must be admitted, there was little warrant for anticipating any different outcome of the matter. It could hardly have been expected that the commission would authorize an increase of rates mainly upon generalities in the way of evidence. It is, moreover, gratifying that several of the large companies, including the Pennsylvania, indicate that they will not appeal from the decision. This is wise and prudent.

It is pointed out that the companies, by refraining from an appeal, will be able to ask of the commission authority to make advances of rates in specified instances upon the argument that such advances would be just, whereas if the general question of advances in rates were left undecided no relief whatever could probably be obtained for two years. Besides, the Harriman lines, and some others, announce that improvements decided upon will be continued, notwithstanding the outcome

at Washington, and that the roads will do what they can toward meeting the demands of business, although they would have had their financial paths made clear had they been permitted to advance rates as requested. Now the situation remains problematical, although hopeful.

But the railroads, reflection will show, are doubtless better off than they would have been were the decision to have granted the advance in rates. Such a result would have stimulated and increased the agitation against railroads, and inclined to keep alive the antagonism against them which is manifested particularly in some sections and more or less everywhere. They have to raise immense sums of money within the next few years (\$5,000,000,000 or \$6,000,000,000 at least, and maybe \$10,000,000,000) for the expansion and betterment of their properties in order to meet the demands of traffic. This work is absolutely necessary; it cannot be avoided, and were there a revival of warfare, legislative and otherwise, against the roads, the obtaining of capital for improvements would be all the more difficult, if not impossible. As it is, the outlook is for peace between all parties to the former conflict, and now the business men of all descriptions—farmers, merchants, manufacturers and others, together with the railroads, should harmonize and overlook all differences, get together and work for the good of the entire country, which is bound to suffer if the betterments needed by the roads are denied. Both sides have been at fault, but they need be so no longer. The railroads can set to work with their best efforts to meet the situation instead of prolonging the fight, and there is small doubt that the people will in the end do them justice if it can be shown that they are not securing living returns under existing conditions. Relief in this was expressed in the recent statement issued by the Harriman lines at the time of the announcement that \$75,000,000 were to be spent to double-track the Union Pacific.

In considering the railroad situation, one salient fact must always be remembered—the roads are, by their very nature, public-service enterprises in the widest sense, and, therefore, to do them serious harm means injury to the public which the roads serve. In the disputes between the people and the lines all the faults have not been on either side; both have been to blame. Not forgetting this, both should do their utmost to establish and preserve friendliness with one end in view—the placing of the roads in the best possible state of efficiency with fair profits to the capital invested therein. There is no doubt that the people are willing to give them a living return for their services.

INCREASING SOUTHERN BUSINESS ACTIVITIES.

As noted by the MANUFACTURERS RECORD, these early months of the year 1911 are being characterized by an increased activity along the lines of general business propositions and developments, as also in building movements. The *Daily Bulletin* has thus far presented a few hundred more items than were published in the corresponding two months of the previous year. These items have been incorporated in the weekly issues of the MANUFACTURERS RECORD, and present a wide range of opportunities for the capitalist having either money or

brain to invest, the manufacturer of any marketable commodity, the dealer in supplies and materials, the engineer, architect and builder. Indeed, it would be difficult to imagine any business in the country, large or small, or any business man not affected to some extent by the requirements, the progress and the productions of such a large number of enterprises in any section of that country. We herewith present these statistics concisely tabulated:

Synopsis of Construction Department, MANUFACTURERS RECORD, for the months of January and February, 1911.

Total of items to March 1.....	8222
Construction.....	6849
Machinery, Proposals and Supplies Wanted.....	1658
Burned, etc.....	324

January items previously detailed.

February items divided in detail as follows:

Bridges, Culverts, Viaducts.....	69
Canning and Packing Plants.....	27
Clayworking Plants.....	29
Coal Mines and Coke Ovens.....	30
Concrete and Cement Plants.....	7
Cotton Compresses and Gins.....	26
Cottonseed-oil Mills.....	15
Cranage and Irrigation.....	15
Electric-light and Power.....	191
Fertilizer Factories.....	15
Flour, Feed and Meal Mills.....	43
Foundry and Machine Plants.....	43
Gas and Oil Developments.....	49
Ice and Cold-storage Plants.....	47
Iron and Steel Plants.....	3
Land Developments.....	122
Lumber Manufacturing.....	165
Metal-working Plants.....	7
Mining.....	49
Miscellaneous Construction.....	219
Miscellaneous Enterprises.....	291
Miscellaneous Factories.....	291
Railway Shops, Terminals, Roundhouses, Sheds, etc.....	13
Road and Street Work.....	179
Sewer Construction.....	75
Telephone Systems.....	38
Textile Mills.....	26
Water-works.....	129
Woodworking Plants.....	71

Railways.

Steam.....	236
Street.....	30

Buildings.

Apartment-houses.....	51
Association and Fraternal.....	65
Bank and Office.....	90
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Included in the Machinery, Proposals and Supplies Wanted list are 16 foreign wants, representing the countries of Mexico, Honduras, Venezuela, Spain, Russia, India, Turkey and Japan.

A POTASH PROPHECY?

Current discussion of the potash situation as affecting the relations of Germany and the United States recalls an implied prediction made nearly six years ago by Edward Atkinson of Boston. He was a man of profound knowledge in many fields, a keen observer and earnest student of every-day happenings, a broad thinker and a bold writer and speaker. Because of these natural gifts and attainments he was able to make certain forecasts bearing upon the development of the country which subsequent events gave the character of prophecy. It was his good fortune to live long enough to see some of his prophecies fulfilled. One of his suggestions, though, is yet to be realized. The potash problem bears directly upon it. Referring in the MANUFACTURERS RECORD of November 2, 1905, to the vast possibilities as to minerals in the Southwest, Mr. Atkinson wrote:

I desire to call your attention to a startling fact that seldom attracts notice. The world may be said to depend upon the Strassfurt potash supplies of Prussia for that material, so necessary in all the arts. A war that should blockade the ports from which we get this supply of potash, even for a few months, would have a more adverse effect in stopping the vast number of important industries in this country than any other event that could occur.

A word may be given to this discovery.

Premising that potash is very soluble, and that it is leached out from salt or from potash-bearing soils or deposits, this account is of extreme interest. Mines of salt had been worked for centuries at Strassfurt and were approaching exhaustion. For some reason the owners had the impression that far below the mines that had been worked near the surface they would find another deposit of salt. They therefore bored through an intervening stratum, I believe many hundred feet thick, and did find underneath another great deposit of salt. The borings were thrown out upon the ground, then attracting no attention. An outside chemist or geologist was attracted by them, picked them up, analyzed them and found that the potash which had been deposited with the salt had been leached and had been caught in what may be called a pan, through which it was not carried away, and there for ages it had accumulated. When this discovery was made salt became of little importance, and the supply of potash in all its refined and crude forms took the markets of the world. We import, I believe, several million tons of kainit, one of the crude and unmanufactured forms from these mines, which is a vital and essential element in nearly all the commercial fertilizers.

Bearing these facts in mind, let it then be considered that through the arid and semi-arid belt from the far North to the far South on this side of the Rocky Mountains, at various points west of the Mississippi, there exist potash springs, often fenced in by the cattlemen to keep their cattle from drinking these waters. Now, where there are potash springs there must be a source of potash through which the water passes, taking up the potash on its way to the surface. It follows that there must be many deposits of what may be called mineral potash in its different forms throughout that great section. They must be sought by boring, and the man who finds a potash mine corresponding to the Strassfurt will add more to the resources of this country and to his own wealth than by the discovery of any more gold, silver, copper or iron mines than can be added to our list. Who will start the prospectors to bore for potash?

Reinforcing Mr. Atkinson's suggestion is a chapter in the forthcoming volume of "Mineral Resources of the United States," published by the United States Geological Survey, in which Mr. W. C. Phalen discusses the uses and the occurrence of potash salts in this country. He shows that the importations of potash have increased from 717,471,433 pounds, valued at \$5,237,558, in 1900, to 1,798,388,772 pounds, valued at \$11,615,130, in 1910. It is pointed out that the known occurrences of potash salts in this country are few in number, and that those promising results are confined to certain arid portions of the Western States where structural conditions are favorable for the retention of any salines that may have been deposited, and the presence of alkaline lakes suggests that others may once have existed. It is suggested that every known salt deposit should be tested, inasmuch as ordinary rock salt may overlie as well as underlie soluble potash salts, and that the red bed in Texas, Oklahoma, Kansas, Colorado, New Mexico and, perhaps, other States, containing gypsum and salt might profitably be explored for potash salts where structural conditions seem to favor an accumulation of salines. That Congress is considering a special appropriation for thorough investigation by the Geological Survey for potash and nitrate salt, and also investigation of the potash question by chemists of the National Department of Agriculture, is an indication that the German potash situation may lead to an uncovering of American potash resources.

Between 500,000 and 600,000 tons of potash are imported into the United States annually. There is hardly a prospect that the dispute of the present as to Germany's attitude will assume the proportions of such a war as that suggested in Mr. Atkinson's article of 1905. But it is not impossible that a

commercial war, having the same effect upon the arts and industries dependent upon potash, might at some time or other be forced upon the world. That contest would be impossible if a supply of the mineral could be traced in this country. Necessity is the mother of invention. Discovery is often the daughter of chance. There seems to be enough at stake and a big enough opportunity in the potash situation to encourage the expert to take a hint from Mr. Atkinson's words and not to leave discovery of native potash supplies to chance or to wait until necessity presses.

TREE PLANTING AT COREY.

Mr. George H. Miller of Boston, who has charge of the landscape work in the new city of Corey, Ala., informs the MANUFACTURERS RECORD that already 28,000 trees and shrubs have been planted in the streets and parks, and that 100,000 trees and shrubs will be used before the street and park areas are completed. In addition, extensive planting of the kind is planned for the front and rear yards of the workmen's cottages. This landscape work is a feature of the thoroughness with which the model city is being built from the ground up, and the tree-planting scheme was the subject of an elaborate paper by Mr. Miller at the January meeting of the Alabama State Horticultural Society. It will involve a miniature botanic garden, in which will be developed the most attractive varieties of herbs, especially hardy in the locality. This garden is near a school which is a part of an architectural grouping of all the public buildings, and the grounds of each are to be ornamented with trees and shrubs.

IRRIGATION IN TEXAS.

Of 11,000,000 acres of land in the United States reclaimed by private irrigation, Texas has about 700,000 acres out of its possible 3,500,000 acres susceptible to such methods. In private Texan irrigation plants already completed or in course of construction about \$15,000,000 have been invested. These facts were brought out by Mr. George E. Barstow of Barstow, Tex., a pioneer in irrigation, in his address at the 1910 meeting of the National Irrigation Congress at Pueblo, Col. The address has been published in attractive pamphlet form, and is likely to encourage further irrigation plans, especially as the irrigated crops grown in Texas, as Mr. Barstow points out, are very varied and include rice, sugar-cane, sugar beets, cabbage, cauliflower, tomatoes and other truck, alfalfa, cut from five to seven times during each season, several kinds of berries, oranges, lemons, bananas, plums, apples, pears, apricots, peaches and grapes.

THE COTTON MOVEMENT.

In his report for February 24 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 177 days of the present season was 10,202,305 bales, an increase over the same period last year of 1,640,845 bales. The exports were 6,137,247 bales, an increase of 1,652,527 bales. The takings were, by Northern spinners, 1,627,051 bales, a decrease of 6740 bales; by Southern spinners, 1,397,024 bales, an increase of 6040 bales.

A WOMAN SECRETARY.

The Commercial Club of Gainesville, Tex., has a woman, Mrs. A. W. Funkhouser, as its secretary, and she not only is alert to the material interests of the community, but finds time to take an active part in the proceedings of such progressive bodies as the Texas Industrial Congress and the Texas Commercial Secretaries' Association.

The Birmingham Iron Market.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., February 27.

The improvement in this market, so far as prices are concerned, is still very largely sentiment, although the aggregate tonnage sold during the past fortnight is fairly attractive. It is insisted that the \$11 Birmingham schedule cannot be made to apply to deliveries after the first half, and that the tonnage that has been booked for delivery extending into the third quarter is very limited, but reports to the effect that a \$11-per-ton quotation has been submitted on third quarter and second half shipments is given some credence. Of the sales made during the past week the period of delivery in no case extended beyond July 1, and a \$11-per-ton Birmingham basis was fully maintained. Certain of the producers who are known to have sold very heavily at the \$11 schedule have advanced quotations for any deliveries to a basis of \$11.50 per ton Birmingham, which is, of course, prohibitive, as such figures are not yet considered a representative of the market for deliveries during the second half. The recent offers of round tonnages for shipment over the remainder of the year have not in all cases been considered other than feelers of the market, yet there has been a decided increase in the consumption, and founders generally are understood to be receiving better prices for their several products. The most depressing effect in the local market results from the curtailment of operations by the manufacturers of cast-iron water pipe. Such concerns are taking even less tonnage than one month ago, and in view of the proportion of local iron that goes to such concerns the shortage is very perceptible. It is understood upon good authority that the movement from furnace yards so far this month has been in excess of the output, with the rate of production practically unchanged when compared with the January rate. An addition to the active producing capacity was recently made, but the increase is to be offset by a reduction at an early date.

No material additions were made to the order-book requirements of local producers of cast-iron pipe during the past week, and the plants that have been idle for some time are still closed down. Announcement has been made of the proposed letting of a round tonnage of water pipe for requirement at Duluth, Minn., but the specifications have not yet been received at local offices. By reason of the fact that no large contracts have recently been awarded in this market, the status of prices for such requirements is not definitely known, but for the small orders that have been placed from time to time quotations as appended have been maintained. The outlook for new business is generally considered good, and an inducement to prospective buyers in the shape of lower quotations is not deemed advisable by the manufacturers. We continue to quote water pipe as follows per net ton f. o. b. cars here, viz.: Four-inch to six-inch, \$21; 8-inch to 12-inch, \$20; over 12-inch, average \$19, with \$1 per ton extra for gaspipe. These quotations are no doubt shaded for large municipal contracts.

The market for old material does not yet show a substantial improvement; in fact, the aggregate of sales during the past week was probably less than that of the week previous. The schedule of prices has not changed, and dealers continue to add to their stocks whenever practicable, but the extent of the increase in the rate of consumption cannot be arrived at with accuracy owing to the uncertainty of the tonnage on the yards of the consumers. We quote the following schedule of prices

per gross ton f. o. b. cars here, which are in the main nominal, viz.:

Old iron axes, \$14 to \$14.50.
Old iron rails, \$12 to \$12.50.
Old steel axes, \$14 to \$14.50.
No. 1 railroad wrought, \$12 to \$12.50.
No. 2 railroad wrought, \$9 to \$9.50.
No. 1 country, \$7.50 to \$8.
No. 2 country, \$7 to \$7.50.
No. 1 machinery, \$9.50 to \$10.
No. 1 steel, \$10 to \$10.50.
Tram car wheels, \$9 to \$9.50.
Standard car wheels, \$10 to \$10.50.
Light cast and stove plate, \$8 to \$8.50.

The market for furnace coke is probably stronger, as is indicated by the preparations now being made for the relighting of a battery of 400 ovens. There has been no change in the price of standard 72-hour foundry coke, and contracts are generally being renewed at the former price. Some difficulty is being experienced in getting shipments from the West Virginia fields, but the scarcity of railway equipment is given as the cause.

The coal market has not improved, and as a result the output has been curtailed very materially. Prices have suffered, as the output has necessarily been reduced, but contracts are not being entered at the new prices. The work on all new opening is being pushed generally, and from all indications the output during the last half of this year will be considerably in excess of that for previous years. This is especially true of the percentage of washed coal for steam and of fancy domestic grades.

A contract for the rebuilding of the Turn Verein Club on First avenue in Birmingham, Ala., has been awarded to W. B. Leedy & Co. of Birmingham.

Plans for the construction of a plant for the manufacture of terra-cotta pipe are under consideration, to be located at Boyles, Ala., on the Louisville & Nashville Railway, and to cost approximately \$200,000.

Chairman Gary on Business.

Discussing the rate decision of the Interstate Commerce Commission, Chairman Elbert H. Gary of the United States Steel Corporation was quoted in New York on Wednesday as follows:

"It is my opinion that if the rate decision has a depressing effect upon business conditions it will be temporary. From my information it seems to me general business conditions are generally and materially improving.

"If this continues, as now seems probable, it necessarily follows that the business of the railroads will correspondingly increase, and in order to take care of their interests they must put and keep their tracks in good condition and largely increase their equipment.

"The different lines of business of the country are more or less tied together. It is time for all of us to take things as we find them, and make the best of them. In such a country as this, where productive capacity is so great and increasing so rapidly, we shall find great opportunities for success.

"From present indications new steel bookings for February will average between 35,000 and 40,000 tons a day, which marks a substantial improvement over the average daily orders in the month of January."

Steel Rail Orders.

[Special Dispatch to Manufacturers Record.]
New York, March 1.

Steel rail orders this week included: Carnegie Steel Co., an order for 15,000 tons for export to Argentine; Illinois Steel Co., 4000 tons, miscellaneous, and Tennessee Coal, Iron & Railroad Co., 500 tons, miscellaneous.

Razing a Modern Reinforced Concrete Building.

[Written for the Manufacturers Record.]

The tearing down of a seven-story modern reinforced concrete fireproof building to make room for a still larger structure, which is now being done in Baltimore, is probably the first instance of the kind where a reinforced concrete building of such size and of such recent date of construction has had to be dismantled.

After the Baltimore fire the Baltimore *News* erected a thoroughly modern, up-to-date reinforced concrete office building for its exclusive use. It was completed in 1905, having been designed by Baldwin & Pennington of this city and erected under their supervision by John Waters Company. The construction is reinforced concrete throughout, strongly built to support the machinery and operation of a newspaper plant, and intended to be as nearly fireproof as could be made. When built it was thought to be equal to the needs of the *News* for years to come. The paper has, however, already outgrown its facilities, and the owner, Mr. Frank A. Munsey, some months ago determined to erect a 16-story building as a home for the *News* and as an office structure.

The building is on the corner of Fayette and Calvert streets. Mr. Munsey purchased additional ground facing on Fayette street and also some Calvert street frontage, so as to give him a lot 138 feet by 102 feet in size. The construction of a great 16-story steel and reinforced concrete building, which is now under way, has necessitated the tearing down of the present home of the *News*. The cut shows the dismantling under way. The practical problems to be overcome in removing this building are of general interest, for, as stated, this is probably the first modern reinforced concrete office building to be razed in order to secure room for a similar structure several times as large.

The building is 57x78 feet, seven stories, basement and sub-basement. The foundation extends 36 feet below the street level, and is composed of heavy 10 to 24-inch steel beams laid in piers in form of a grillage and located conveniently as regards the pillars resting on the foundation piers, and the whole mass of the grillage filled in with concrete, forming a solid mass in each pier. The new building has been designed for new foundation piers, without reference to the old foundations, requiring the removal entirely of all foundations and those of the adjacent buildings which are now included in the site for the new structure.

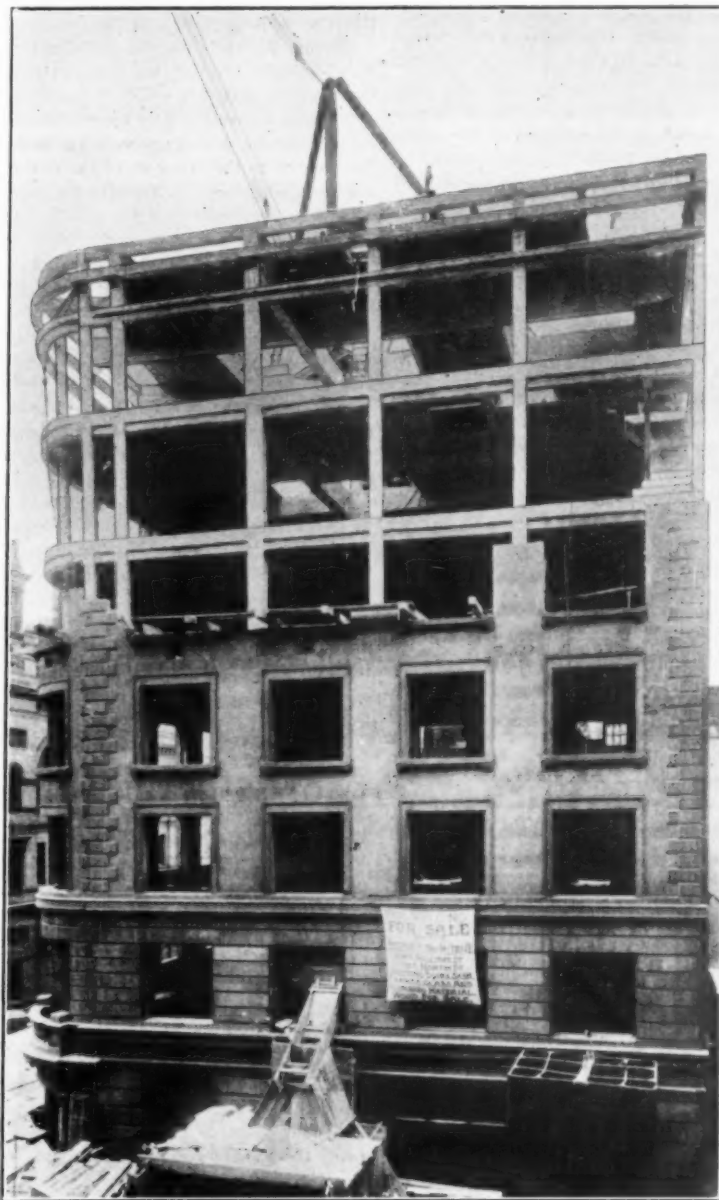
The foundation piers of the new building will be constructed of solid concrete, 11 feet from foot to a granite cap. They will rest on the hard gravel footing, and will be of spreading base construction, no piling being necessary. The bottom "step" in each pier will be about 13 feet square, the blocks decreasing in each of 6 "steps" up to the 11 feet height of the pier, where it is capped with a 5x5x1-foot 6-inch granite block.

The walls of the old building facing the streets were of Indiana limestone from 6 to 24 inches, as required for the architectural effects of finish, and this was backed by brick walls varying from 8 to 18 inches. The walls not facing streets were entirely of brick, 2 feet 10 inches at base, 21 inches at first floor, and decreasing to 13 inches at the top floor. The main columns are 18 inches square, concrete reinforced by plain round iron rods 1 to 2 inches in diameter, some of the columns containing as many as 14 vertical rods, and numerous short horizontally-placed binding rods. The main floor beams are 12x24-inch I-beams completely

filled and "squared up" with concrete, spaced about 12 feet apart, and average about 15 feet between supports. One large girder over the window opening on the street is 51 feet by 4 feet 6 inches depth. The floors are concrete, reinforced by one-half-inch plain round iron rods in lattice work, six-inch mesh, and the roof of lighter construction, with mesh and rods varying from 6 to 12-inch mesh and one-quarter to three-quarter-inch rods. The concrete floors are 3 to 4 inches thick, with cinder filling and broken stone and cement facing on top, making about 8 to 10 inches thickness in all, giving a strong and smooth

the hoisting tackle is applied the weight of the stone draws the strap so that the two dogs are held firmly into the stone.

The most difficult problem involved in the removal of the building lies in the concrete reinforcing and the heavy iron I-beams embedded in concrete in the foundation grillage work. The method of attacking this will be to remove the concrete by pneumatic tools, chisels, explosives, etc., at the point of intended separation and "cut" the metal by means of the oxygen blowpipe. The blowpipe to be used is the Universal Cutter made by the Linde Air Products Co., Buffalo, and coal gas, mixed in passage to the flame with oxygen under pressure, will be used. This combination, producing intense heat at the point of application, is expected to cut



wearing surface. The brick backing behind the stone walls was laid in lime mortar, and was easily and rapidly removed, but the rear solid brick walls, laid in cement mortar, required much more time and work to remove. The lime mortar work was removed by ordinary hand bar and light picks, but the cement-laid work required heavy sledge-driven chisel bars and pneumatic tools, and the removal is then much slower than the front walls, as may be seen by referring to the accompanying photograph. The stone wall has been removed by means of ordinary derrick falls, etc., the large stones being lifted by means of two large "dogs" hung with manila grommet strap, each "dog" being set into a hollow scored in the end of the stone and the upper end of strap hooked at the hoisting block. When

through the reinforcing rods and I-beams expeditiously. One man can handle the blowpipe, regulating pressures and the flame by means of valves attached to the "cutter."

The condition of the iron, concrete, reinforcing bars, flooring, lead conduits, stone and brick work all appear to be the same as when put into the building, no rust, strains or cracking having appeared so far in the removal of the material, except a settling crack in one of the large girders. Architects and builders have been interested in the tearing down of this building in order to study the reinforced concrete work with a view to seeing whether any chemical changes had taken place in the iron and reinforcement work. As well as can be judged by the conditions so far found in tearing down the building,

it would have stood for ages without deterioration of any kind.

The George A. Fuller Company has the contract to remove the old buildings, as well as for the steel construction of the new one, which is designed by McKim, Mead & White, New York, with Baldwin & Pennington, Baltimore, as associates. J. G. Bent is superintendent of the work for the Fuller Company, with office in the *News* building.

IN THE GADSDEN DISTRICT.

Mr. Cecil Grenfell's Opinion of Its Industrial Possibilities.

Bearing upon the visit to Gadsden of the Southern Iron & Steel Co. party is a letter to the *MANUFACTURERS RECORD* from Mr. W. R. Phillips, secretary of the Business Men's Club of that city. Mr. Phillips asked Mr. Cecil Grenfell, chairman of the Southern Iron & Steel Co., for a written opinion of the Gadsden district, and in reply received the following:

"I am very much impressed with the great possibilities of the Gadsden district, where there are mineral resources in close proximity such as I believe exist in very few, if any, other parts of the world. The Government geologist's report, issued in Bulletin No. 400, must convince anybody unacquainted with the district of the great future that it has before it. You are at liberty to state this as my opinion."

Mr. Phillips' letter deals mainly with the plan being pushed by the Business Men's Club to raise a fund of \$150,000 for the encouragement of the location in Gadsden of small industrial plants. This plan was outlined editorially in the *MANUFACTURERS RECORD* a short while ago. Mr. Phillips says that while the plan looked to small plants, larger ones wanting to locate at Gadsden will be taken care of, and he adds:

"The Business Men's Club with the co-operation of the citizens of Gadsden raised a fund of \$150,000 and donated same to the Southern Iron & Steel Co. to locate wire, rod and nail mills at its steel plant here. The citizens of Gadsden consider this one of the best movements they ever made. Industrial plants seeking a location to manufacture iron and steel products can find no better location and greater opportunities than are offered at Gadsden, the Southern Iron & Steel Co., operating, as it does, its iron furnaces and open-hearth steel furnaces, rolling mill, producing merchant steel, wire, rods and nails, and it is reported that it will soon install a union mill and other improvements.

"Gadsden has most all of the natural elements and resources for manufacturing in every line. The Gadsden district is rich in iron, coal, limestone, building stones and cements, timber, with the Coosa River and other streams furnishing an abundance of free water for all industrial plants.

"Without a doubt there is a dawning of a new era, not only for this wonderful Gadsden district, but for the whole South. Not only is there an awakening of industrial development, but the agricultural development is also waking up to the great possibilities of this section. Scores and scores of men and boys demonstrated last year on the farms in Alabama that they can produce from 100 to 150 bushels of corn per acre. The State of Alabama and the counties are appropriating more money than ever before to encourage the agricultural interest of the State. One of the best States in the Union is Alabama, and one of the best towns in the world is busy Gadsden, the city of opportunity."

It is estimated that the 1910 value of farm crops in Missouri was \$200,000,000.

OUR ANNUAL BLUE BOOK OF SOUTHERN PROGRESS.

From men prominent in public affairs the MANUFACTURERS RECORD is receiving gratifying expressions of satisfaction with its Annual Blue Book of Southern Progress for 1911, just issued. Extracts from some of the letters follow:

Secretary James Wilson of the National Department of Agriculture, Washington:

"The statistics and other matter presented in the book are very strikingly and effectively displayed, and the compilation ought to be a very useful one for students of the South's remarkable progress."

Hon. E. F. Noel, Governor of Mississippi:

"I will read it with much pleasure, and know that I shall derive much useful information as to the progress of the South, to which your journal has contributed no little."

United States Senator Duncan U. Fletcher of Florida:

"I have always found this work full of valuable information."

United States Senator S. H. Piles of Washington:

"I find it a very interesting publication, which I am glad to have."

United States Senator George C. Perkins of California:

"I wish to thank you for the very useful volume, which contains matter of very great interest and importance to the people of the entire country."

United States Senator Henry E. Burham of New Hampshire:

"The growth and development of the South is most astonishing, and I am greatly interested in the facts stated. I am pleased to have this book, and am obliged for the favor."

United States Senator John Walter Smith of Maryland:

"I want to thank you very much for the copy of the Annual Blue Book of Southern Progress, which contains a great deal of matter of interest and information which I am very glad to have."

Hon. J. Hampton Moore, M. C., of Pennsylvania:

"Your progressive work through the MANUFACTURERS RECORD, especially as it has tended to make the South better known from a commercial and manufacturing viewpoint, always interests me. You have my best wishes."

Hon. Washington Gardner, M. C., of Michigan:

"As a Northern man, I want to congratulate you on what you are doing and have done in calling attention to the possibilities of the South and the rapid development in material progress in that section."

Hon. E. W. Saunders, M. C., of Virginia:

"Allow me to congratulate you upon the production of a work of so much value to the business men of the South, and to thank you for a copy of the same."

Hon. Champ Clark, M. C., of Missouri:

"It is a very interesting book, and I appreciate it."

Hon. George W. Taylor, M. C., of Alabama:

"Thanks for your courtesy in sending the 'Annual Blue Book of Southern Progress,' but much more thanks for your splendid aid and sympathy in the development of the South."

Hon. John L. Burnett, M. C., of Alabama:

"I beg to thank you most sincerely for this little gem. As yet I have only had time to examine it casually, but that convinces me that it is worth its weight in gold. You are going a great work for the South, and I, with thousands of others, thank you for it."

Hon. John Lamb, M. C., of Virginia:

"You have done and are doing a noble work for the South that is fully appreciated, I am sure."

Hon. Thomas U. Sisson, M. C., of Mississippi:

"The MANUFACTURERS RECORD has for years been the most valuable magazine of its kind published in the South. Permit me to congratulate you on your magnificent management of this Southern magazine. I appreciate very much the valuable Blue Book, and am sure it will be of great service to me."

Hon. Edwin Y. Webb, M. C., of North Carolina:

"I have just examined it carefully, and find that it contains a vast deal of information about our great Southland, and we feel indebted to you for getting up this information in such an attractive style."

Hon. Adin B. Capron, M. C., of Rhode Island:

"I am greatly interested in the subject, and rejoice in the progress of our sister States of the South."

Hon. George C. Sturgiss, M. C., of West Virginia:

"I have given a cursory examination, and find it is a very valuable little book."

Hon. Frank Plumley, M. C., of Vermont:

"I am certainly pleased with the book, and thank you for having me upon your list."

Hon. G. W. Koiner, Commissioner Department of Agriculture and Immigration, Richmond, Va.:

"I would appreciate it highly if you would have sent me another copy of your valuable Blue Book. I have found this very helpful, so much so that I can't keep one on hand, and I find that people who have not seen it are not as well posted as they would like to be about our Southern country."

Hon. Charles C. Carlin, M. C., of Virginia:

"I have not had time to more than glance over it, but think it an extremely useful publication."

Hon. Thetus W. Sims, M. C., of Tennessee:

"Your Annual Blue Book of Southern Progress for 1911 has just been received, and I thank you very much for same, which gives much useful information that I could not have obtained elsewhere."

Hon. J. E. Ellerbe, M. C., of South Carolina:

"I am sure from it I shall gain valuable information relative to my section."

Hon. J. Harry Covington, M. C., of Maryland:

"It seems to be a most interesting compilation, showing developments of the South, and I desire to express my thanks for it."

Hon. James M. Miller, M. C., of Kansas:

"I have looked it over with a great deal of pleasure."

Hon. E. S. Candler, Jr., M. C., of Mississippi:

"I am sure the facts therein will be very valuable to me in the future."

Hon. Gordon Lee, M. C., of Georgia:

"The reading of the book has given me much pleasure, and is an inspiration to all who believe that the South is surely coming to its own in the matter of wealth and prosperity."

Hon. Albert Estopinal, M. C., of Louisiana:

"Permit me to thank you for your consideration in sending me the Blue Book of Southern Progress, which I find very interesting and very valuable."

Hon. W. D. Jamieson, M. C., of Iowa:

"The South has indeed made remark-

able advancement, and I am delighted to see it."

Hon. John M. Morehead, M. C., of North Carolina:

"Allow me to extend my most hearty congratulations to you in the magnificent work you and your journal are doing for our section, and to say that, in my opinion, your personality and your publication are most potent factors of the South's development and rejuvenation."

Hon. J. Thomas Heflin, M. C., of Alabama:

"I wish to thank you for your Annual Blue Book of Southern Progress. It is the best thing I have ever seen on the subject."

Prof. John Jermain Porter, University of Cincinnati:

"It is a very valuable compilation, and will prove very useful to me in my work. Great credit is due you for getting it out."

Mr. H. J. Patterson, B. S., director Maryland Agricultural Experiment Station, College Park, Md.:

"I know we will find it very valuable for reference as well as interesting to have the facts as to the resources of the South and the progress which this section of our country is making."

Mr. L. S. Evans, general manager Clinchfield Fuel Co., Spartanburg, S. C.:

"This publication is quite a handsome compilation of interesting information."

Mr. J. C. Lusk, vice-president Jemison Real Estate & Insurance Co., Birmingham, Ala.:

"We congratulate you on this very complete and comprehensive publication, and we are very much pleased with our advertisement."

Mr. John W. Sibley, president Sibley-Menge Brick & Coal Co., Birmingham, Ala.:

"I have thus far been able only to give it a cursory investigation and perusal, but it appears to be up to the usual standard of excellence of the MANUFACTURERS RECORD, and literally bristles with facts of the great potentialities of the South from an industrial standpoint."

Mr. George B. Edwards, president Southern States Development Co., New York:

"We congratulate you upon the great work you are doing and have done for so many years in making known the wonderful possibilities and progress of the South, which will surely become the most prosperous section of this country in the near future, if it is not already so."

Mr. C. McC. Lemley, assistant engineer Baltimore & Ohio Railroad Co., Morgantown, W. Va.:

"I consider it a very valuable book of statistics of Southern resources and progress, and a wide distribution of this volume would no doubt do much good in advertising the resources of the South and increasing its future prosperity."

William A. Rogers, Rogers, Brown & Co., Buffalo, N. Y.:

"The MANUFACTURERS RECORD has been a consistent and forceful advocate of the great natural advantages for enterprise in the southern portion of our country. It is a fine thing to have such an able champion."

Mr. Samuel C. Rowland, Baltimore:

"Is very attractive in appearance and full of useful information."

Mr. D. B. Chambers, secretary Stewart Iron Co., Ltd., Cleveland, O.:

"Is a most gratifying record, and the splendid enterprise shown by the Southern States is entitled to the heartiest congratulations by the balance of the country."

Mr. Summerfield Baldwin, Woodward, Baldwin & Co., Baltimore:

"A glance at the Blue Book assures me that I shall find it both of interest and

profit with reference to the Southern section of the country. Some of this, as you know, I have been closely identified with, which makes it of still greater interest to me."

E. H. Sanborn, Philadelphia, Pa.:

"I find it full of interest."

J. S. Stillman, secretary Empire Steel & Iron Co., Catasauqua, Pa.:

"Contains information of a great deal of interest."

Edward B. Smith & Co., Philadelphia, Pa.:

"The book gives evidence of being carefully prepared, and we trust that we shall find it very useful."

W. S. Minor, Northville, N. Y.:

"It certainly is showing wonderful progress of the Southern States in all lines and a great, careful work on your part in compiling the wonderful book."

Edward Wheeler Parker, statistician in charge, Department of the Interior, United States Geological Survey, Washington:

"The little volume contains a mass of useful and interesting information to which I shall have frequent occasion to refer."

Rev. Dr. O. C. S. Wallace, First Baptist Church, Baltimore:

"A compendium of this character is of great use to one whose interests extend throughout the territory covered by the reports contained in the book. I am glad to count myself among the great company of those to whom the MANUFACTURERS RECORD is a constant inspiration."

Thomas Devlin, president Thomas Devlin Manufacturing Co., Philadelphia, Pa.:

"In the casual glance through its pages I was surprised to find the great progress made in every line of manufacture as well as in agriculture during the last few years in the South."

Mr. Severn P. Ker, president Sharon Steel Hoop Co., Sharon, Pa.:

"This book is very interesting to me."

Frank Weston, Cummer Lumber Co., Newberry, Fla.:

"We find it remarkably full of interest and very entertaining and instructive."

Porter A. Whaley, secretary Commercial Club, Pecos, Tex.:

"Again we wish to congratulate you as highly as we can on your splendid presentation of the South's success. The MANUFACTURERS RECORD has again demonstrated its great value to the South and the newer Southwest, and we sincerely trust that you may have many more prosperous years for the great work which you have undertaken—the work of telling humanity about the South, and the more the truth becomes known the greater the development Dixie will see."

Mr. Leonard Peckitt, president Empire Steel & Iron Co., Catasauqua, Pa.:

"It appears to be full of most useful information relative to Southern affairs."

H. B. Moore, vice-president and general manager Texas City Terminal Co., Texas City, Tex.:

"To every business concern of any magnitude located in the South or Southwest the data, information and statistics contained in this book will unquestionably be of interest and material value."

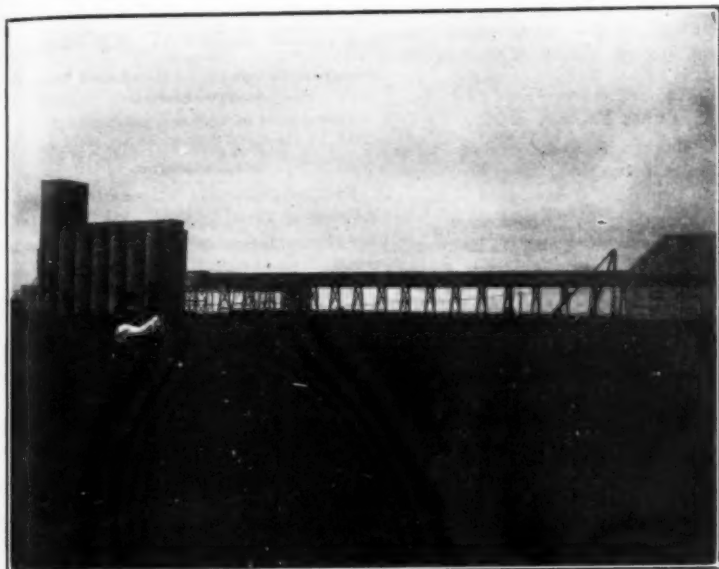
W. P. G. Harding, president the First National Bank, Birmingham, Ala.:

"The book is a valuable compendium of information relating to the South."

George F. Lupton, general passenger agent San Antonio & Aransas Pass Railway Co., San Antonio, Tex.:

"I have read with a great deal of interest your Blue Book, and I must say that it is one of the most valuable of its kind, and worthy of the widest circulation."

TYPICAL TERMINAL FACILITIES AT TEXAS CITY.



VIEW OF MODERN FIREPROOF GRAIN ELEVATOR.



EXTERIOR OF WAREHOUSE.



INTERIOR OF MODERN WAREHOUSE, USED BY TUFTS & OSBORNE.



ANOTHER INTERIOR VIEW OF MODERN FIREPROOF WAREHOUSE.

SOUTHERN WET LANDS.

Importance and Feasibility of Their Reclamation.

[Special Cor. Manufacturers Record.]

Oceana, Va., February 27.

To me, the reclamation of the lowlands of the South is today more important, more feasible, more sensible and more in accord with the teachings of political economy than the irrigation projects in which the Government is so extensively interested.

Reclaiming the Southern swamp land goes merrily on, increasing in momentum and popularity each year. In accord with enabling acts of the Legislatures of the States in which the swamp lands are located, it becomes feasible and practicable for incorporated companies to take hold of the work upon a good substantial footing, backed and sustained by wise legal enactments.

Within the past 60 days two such movements have been inaugurated in Norfolk county, Virginia. These, however, embrace only limited areas, affecting something like 10,000 acres, directly or indirectly, in each of the two propositions. One of the bodies of swamp land involved runs to within less than two miles, in air lines, of the corporate limits of the city of Norfolk. It is what is termed as "Pocoson" land. This is the old Indian name for such tracts. A peculiarity of such tracts is this: While, in general features,

these tracts resemble swamps, and are swamps, they are really higher than most of the surrounding lands. They seem to hold the water like a sponge rather than as a basin. Take the tract near to Norfolk, for example. The writer knows from personal observation that there are at least four outlets from this "Pocoson" through which the surplus water finds its way to different tidewater streams, or salt arms of the sea. The swamps have been naturally built up or filled up by the annual liberal deposit of leaves and decaying grasses, reeds and other vegetation, until the surface of the land has been elevated to such an extent that the water runs out of the swamps instead of into them.

Under the authority of the Legislature of North Carolina a company is about to begin the work of reclaiming 100,000 acres of land around and including Lake Mattamuskeet. When this movement is accomplished it will put upon the market 100,000 acres of the best corn lands in the United States. The lake embraced in this tract is shallow, not more than one to two feet in depth. Unlike other lake beds, the bed of this lake was formed by fire. Careful surveying shows that this lake, like Lake Drummond, in the great Dismal Swamp of Virginia, is really higher than the adjacent lands ages ago, yet within limit of Indian tradition. In a season of unprecedented drouth fires raged with unusual force over a long period of time. For "13 moons," one full year, tradition says, the fires burned, and the ground was burned

up, being of a peaty nature, and the bed of the lake was formed, and returning rains gradually filled it up. The lakes in such cases and in such swamps being found at the highest points, rather sustains the correctness of the traditions.

The fact, however, remains that nearly every swamp can be drained thoroughly by gravity. It is only a matter of so many cubic yards of dirt dug out of ditches. The modern dredge digs the ditch economically and rapidly. Forty years was required, with shovel and wheelbarrow, to dig the Dismal Swamp Canal. George Washington was the civil engineer who laid down the lines. A modern dredge would remove as many cubic yards of dirt in less than one year. The modern dredge has practically released from the bondage of water several million acres of the most productive land in the United States. State enactments have rendered it practicable and safe for capital to grasp the opportunity, and capital is grasping it. The swamp lands of the South, reclaimed and planted to corn, would make the South a seller instead of a buyer of corn, and make a veritable Egypt of the section, especially the seaboard section south of Mason and Dixon's line. The fact that these great bodies of very rich and productive lands can be redeemed is worth many millions of dollars to the South. The work has just fairly begun. It is not only popular, but will be productive, and will greatly promote the agricultural development of the South and be profitable to all concerned. A. JEFFERS.

FOR GREATER CHARLOTTE.

Business Expansion Expected from Interurban Railway Construction.

[Special Cor. Manufacturers Record.]

Charlotte, N. C., February 25.

Recent sales of real estate, quite large for a city of the size of Charlotte, indicate that the business men of this community are preparing for an increase in trade that is expected to come within a short while. Within a radius of 100 miles of this city are about 425 cotton mills, each the center of a populous community. The proposed interurban electric railway development will bring Charlotte into closer touch with these communities, as well as with other cities and towns, and will give local merchants an opportunity to expand their business. Furthermore, it may be reasonably expected that the increased opportunities for trade here will induce the establishment of branches of some of the large businesses of the North and West, and thus additional buildings will be required.

Having this in mind, one of the most far-seeing and progressive men of Charlotte, who recently sold to the Southern Power Co. his interests in the street railway and gas and electric plants, turned his attention to acquiring such real estate as in his judgment offered advantages in helping the growth of the city. There have been other real-estate transactions by men of means, who will seek to improve their investments. While the prices paid may seem high, it is merely the result of a steady enhancement

in the value of real estate due to the increase in the population of the city. Transactions are not of the boom variety, as both real estate men here and the financial interests are a conservative group, not prone to cultivate unhealthy conditions.

A committee of business men of Norwood and the intermediate territory were here the other day in the interest of the construction of a railroad between Charlotte and Norwood, giving this city connection with the Atlantic Coast Line.

J. LOUIS SPENCER.

Sweetwater Offers.

Sweetwater, Tex., February 20.

Editor Manufacturers Record:

Glancing over an old number of your magazine bearing date of September 16, 1909, I note a short item concerning the growth and prosperity of Sweetwater. This item mentions the fact that Sweetwater has, among many other good things, the Kansas City, Mexico & Orient Railway and its general offices and division shops, and the Texas & Pacific Railway and the Santa Fe are coming. You might just say that the Santa Fe is here, and is building depots and an eating-house, and has let the contract for large shops and an 18-stall roundhouse. Will add further that the packing-house predicted in the item mentioned above has materialized, and they are now installing machinery, and in addition we have a contract with another and a larger one to begin construction in the next 60 days. There is a splendid opening here for almost any enterprise known to man. Come to Southwest Texas, and especially to Sweetwater, and we will extend the glad hand and lend encouragement and support to any enterprise you may wish to launch.

Sweetwater wants at present large manufacturing plants, a street railway and a sewer system, and will offer a pretty proposition and a profitable field to any of them.

BEN ANTHONY.

Cocoanut Products.

The Dorf Manufacturing Co. of Dorf, near Mobile, Ala., will make high-grade soap oils and the edible pharmaceutical products from cocoanuts. Its factory is at Dorf, on the main line of Southern Railway, and also on Chicksabogue Creek. The property consists of 40 acres of land with water front of 700 feet, giving ample docking facilities for vessels engaged in the cocoanut trade; also 1625 feet of side-tracks and 900 feet on main line of the Southern Railway. In addition to this property, the company has warehouses on U'illa Island. Over \$75,000 has been expended by the company in constructing the plant, which consists of factory buildings fitted out with latest designs of machinery and storehouses, etc. The main building is 125x200 feet. The engine-house and boiler-house are of concrete; roof of main building fireproof, floors and foundations solid concrete, and the building is fitted out with a modern fire system. The factory will be working full time at an early date, and will give employment to fully 250 men and women. Practically all the manufactures will be made under patents awarded to General Manager Geo. C. Warr and owned by the company. The other officers of the company are J. M. Friedman, president; George C. Warr, vice-president and general manager; Louis Lowenthal, treasurer; John Craft, secretary, and Harold Warr, superintendent.

The Magnolia Springs (Ala.) Transportation Co. has filed incorporation papers to operate vessels between Mobile and all landings on Mobile Bay; capital \$5000. F. H. Brunnell, Brodbeck & Zundell Bros., C. E. Coster, Gottfried Mertz, H. L. Pierce, C. L. Howe and I. M. Larson are interested

Enlarging Baton Rouge Refinery.

The MANUFACTURERS RECORD has received further advices from Amos K. Gordon, treasurer of the Standard Oil Co. of Louisiana, regarding the enlargement of his company's Baton Rouge refinery. Mr. Gordon telegraphs that the new construction will increase the plant's capacity to the extent of 5000 barrels of oil daily, and that the new equipment will include crude stills, steam stills, steam tankage, paraffine plant and other necessary mechanical apparatus. As stated last week, the construction will be of the same character and scope as the original plant begun in the spring of 1909, not in 1910, as erroneously stated last week. It was reported, but not authoritatively, that the original expenditure was about \$2,000,000.

Springfield (Mo.) Improvements.

Mayor Robert E. Lee of Springfield, Mo., writes to the MANUFACTURERS RECORD:

"Thinking you might be interested in what Springfield is doing in the way of public improvements, I send you herewith a clipping from one of our daily papers giving a brief summary of the street paving constructed and contracted for since the beginning of the present administration, April 21, 1910.

"In addition to the street paving, we have constructed or now have under contract 84,608.5 linear feet of curbing, at a cost of \$43,874.95; 18,012.54 linear feet of sidewalk, at a cost of \$8583.02, and 23,464.8 linear feet of district sewers, at a cost of \$19,315.06, with 17,270 linear feet of district sewer additional now provided for.

"Permits have been granted for about 13,800 feet of sidewalk, 9000 feet of curbing and 600 feet of paving, to be constructed by the property-owners under private contract."

The newspaper statement is to the effect that under Mayor Lee the City Council has contracted for 69,362.55 square yards, at a total cost of \$116,396.51. Of this, 12,661.20 linear feet of pavement, containing 43,826.98 square yards, have been completed, at a total cost of \$69,648.64. The Council will soon pass bills providing for nine streets, a distance of 11,666.80 linear feet, containing 40,830.32 square yards, at a total cost of \$37,288.37.

South Carolina Water-Powers.

One of the most thorough studies of a particular natural resource of a State that have recently been made in the South was that of Mr. August Kohn of Columbia, S. C., dealing with the water-powers of South Carolina. The results of his study were published originally in the *News and Courier* of Charleston, but they have such a practical bearing upon the industrial development of the State that Commissioner E. J. Watson of the State Department of Agriculture, Commerce and Industries has reproduced the articles in an official pamphlet.

Cherokee Chemical Co.

The Cherokee Chemical Co. of Rome, Ga., has been incorporated with \$250,000 capital stock for the purpose of manufacturing various kinds of chemicals. Its incorporators are P. C. Jack of Rome and P. D. Christian of Greensboro, N. C., the latter having formerly been president of the Interstate Chemical Co. of Baltimore.

Wants Plans for Hotel.

Architects are requested to furnish plans, specifications and estimates for a steel or reinforced concrete hotel building, with basement and heating plant, to cost not more than \$100,000. The site has a 100-foot east front and a 140-foot north

front, with an alley on the west, and is unexposed on the south. The best plans will be accepted, \$100 will be paid for the second best and \$50 for the third best. Address Jay H. Mullen of Bartlesville, Okla.

Offers Factory Sites.

Mr. Malcolm S. Dougherty of Baton Rouge, La., writes to the MANUFACTURERS RECORD that three factory sites in North Baton Rouge on the Yazoo & Mississippi Valley Railroad, the Louisiana Railway & Navigation Co. and the Baton Rouge, Hammond & Eastern Railroad, with the Seaboard oil refining plant on one side and Baton Rouge on the other, will be offered free if spoken for within the next 60 days by N. S. Dougherty of Baton Rouge.

Machinery Dealers.

At the April convention at Louisville, Ky., of the American Supply and Machinery Manufacturers' Association the National Supply & Machinery Dealers' Association and the Southern Supply & Machinery Dealers' Association discussion will be had of cash discounts, resale prices, cost of doing business, proper method of handling expense items, proper compensation of traveling salesmen, protection to the jobber by the manufacturers and other subjects of equal importance.

County Roads Progress.

During 1910, according to the report of Roads Engineer Henry G. Shirley, \$308,644 were spent upon 1205 miles of roads in 15 districts of Baltimore county. Something more than three miles of State aid work was completed at a cost of \$37,276, of which the State paid \$18,638, county \$14,538 and contributors \$4100, in round numbers.

Paul Brothers Incorporated.

Paul Brothers of Watertown, Fla., have incorporated under the name of "Paul Brothers" for the purpose of manufacturing lumber, the capital stock being \$500,000 and the officers being as follows: President, R. H. Paul; vice-president, John J. Paul; secretary-treasurer, A. G. Paul.

To Manufacture Paper.

The Sugarland Pulp & Paper Co. of Sugarland, Tex., has completed its paper mill, and is about to begin manufacturing. This plant will produce high-grade sulphite, fiber, kraft and butcher papers, the wood pulp being used being obtained from Norway and Sweden. E. E. Emigh is the company's general manager.

Indicative of the extent of the trade in cottonseed products is the statement by the Board of Trade of Little Rock, Ark., that one firm in that city sold last week 315 carloads of cottonseed meal and hulls, nearly all for export, and that the firm had inquiries from as far west as California and as far North as New Hampshire.

Prof. James M. Johnson of Savannah estimates that at a cost of \$200,000 fully 160,000 acres of good land within a reasonable distance of Savannah can be drained and made productive of cotton to the annual value of more than \$3,000,000.

Commissioner J. C. A. Hiller of the Missouri Bureau of Labor Statistics estimates that 234,418 tons of concentrated zinc ore produced in that State and valued at \$11,720,900 was shipped to the smelters in 1910.

T. M. Nabers of Washington, Ga.; J. H. Boykin of Lincoln, Ga., and others, it is reported, are reported organizing a company to operate an auto-truck line between Washington and Lincoln.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

Bonds Voted.

Parkersburg, W. Va.—Parkersburg district of Wood county voted \$180,000 bond issue for paving about 10 miles of road.

Wetumpka, Ala.—Elmore county voted issuance of \$170,000 of bonds for road improvements.

Bonds to Be Voted.

Alvin, Tex.—Alvin district of Brazoria county will vote March 28 on issuing \$150,000 of bonds for constructing shell and gravel roads.

Brady, Tex.—McCulloch county will vote March 25 on issuing \$75,000 of bonds for road construction.

Columbus, Tex.—Columbus county will vote March 7 on issuing \$250,000 of road bonds.

Hempstead, Tex.—Precinct No. 6 of Waller county will vote April 1 on issuing \$10,000 of bonds for road construction.

Paris, Tex.—Lamar county precinct No. 1 contemplates voting on issuance of \$75,000 of bonds for road construction.

Morgantown, W. Va.—City will vote April 6 on issuing \$35,000 of bonds for street paving.

Nashville, Tenn.—City plans issuing \$100,000 of bonds for constructing sidewalks and widening bridge.

Shreveport, La.—City will vote April 4 on issuing \$250,000 of bonds for street paving.

Tazewell, Va.—Tazewell county will vote April 11 on issuing \$650,000 of bonds for road construction.

Wadesboro, N. C.—Anson county will vote on issuing \$300,000 of bonds for road construction.

Contracts Awarded.

Macon, Ga.—City awarded contract for 100,000 square yards of brick paving.

Norfolk, Va.—Norfolk & Portsmouth Traction Co. awarded contract for laying about 8500 yards of vitrified brick paving. Taylor, Tex.—Williamson county awarded contract for macadamizing two public roads.

Contracts to Be Awarded.

Chattanooga, Tenn.—City will receive bids until March 7 for paving various streets.

Dallas, Tex.—Dallas county will receive bids until March 4 for grading and graveling two roads.

Dallas, Tex.—City will invite bids for paving Cochran street.

Dallas, Tex.—City will receive bids until March 6 for paving seven streets.

Dallas, Tex.—City has received bids for paving on Jefferson street.

Fort Monroe, Va.—R. B. McBride, quartermaster, U. S. A., will open proposals on March 21 for constructing concrete walks, macadam roads, etc.

Louisville, Ky.—City has bids on constructing about 32,000 square yards of asphalt pavement to cost about \$70,000, and will receive bids on March 3 for constructing about 15,000 square yards of vitrified brick pavement to cost about \$28,000.

Quinton, Okla.—City contemplates constructing cement sidewalks.

Richmond, Va.—Finance committee has recommended an appropriation of \$180,000 for general street improvements, \$50,000 for Washington ward streets and \$15,000 for New Lester street.

Troy, Ala.—City will pave various sidewalks.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

ALABAMA TO DAKOTA.

Mississippi Northwestern Railroad Projected—Investigations Now in Progress.

It was recently reported that W. G. Seaver, 10 Wall street, New York, was investigating a route across Arkansas for a proposed railroad. He now writes from his home address, Chester, Pa., that his work is on behalf of the Mississippi Northwestern Railroad, which it is proposed to build from either Mobile, Ala., or Pascagoula, Miss., to either Pierre, S. D., or Omaha, Neb., 1685 miles, via Canton and Yazoo City, Miss.; Benton, Clarksville and Bentonville, Ark.; Joplin, Mo., and Fort Scott and Topeka, Kans. His investigations are at present confined to securing data as to the best and most feasible route before filing charters in the several States to be traversed. He has just completed the investigation in Mississippi, but there may be changes from the route outlined.

Mr. Seaver further says that if the investigations justify it the underwriting and sale of the bonds for the road is assured and it will be constructed. It is contemplated to issue 5 per cent. bonds for \$30,000 per mile. He is acting as president and general manager, W. A. Pollock of Pascagoula is vice-president and J. M. Searles of Vicksburg, Miss., is chief engineer. S. S. Watson, 10 Wall street, New York, is general counsel. The matter depends mainly upon the results of the investigations in Arkansas, as the cost of construction there will be almost double the cost per mile of the rest of the road. A construction company will be formed if it is decided to undertake the work.

A COAL RAILWAY.

Plans Reported for a North and South Line in Eastern Kentucky.

According to a dispatch from Frankfort, Ky., Roy Wilhoit, who is connected with the Kentucky Railroad Commission there, is interested with New York capitalists in a plan to build a railroad from Webbville, Ky., which is in Lawrence county, to Poor Fork, in Harlan county, for developing coal and timber lands in which he is interested. It is said that survey will begin in June, and that \$250,000 have been subscribed for the enterprise.

This would demand the construction of approximately 100 miles of new railroad southward through some of the eastern counties in the State. It would touch Paintsville, Salyersville and Hindman, and would connect at Webbville with the Eastern Kentucky Railway, at Paintsville with the Chesapeake & Ohio, and at the terminus in Harlan county with the extension there of the Louisville & Nashville system.

A company is reported to have been formed recently with five New Yorkers and four Kentuckians, including Mr. Wilhoit, as directors.

ANOTHER HARRIMAN LINE.

Extension to Be Made from Fort Worth—Other Routes Rumored.

Dispatches from Fort Worth, Tex., say that President R. S. Lovett of the Southern Pacific Railway, while in that city recently announced that it is intended to eventually extend the Houston & Texas Central line northward from Fort Worth. While he did not say what would be the northern terminus of the extension, it is presumed that the new line will reach the Union Pacific Railroad in Kansas, as a

connection through Oklahoma for these two roads of the Harriman system is desired.

In this connection it is of particular interest to note another report from Omaha that the Union Pacific is preparing to build an extension from Topeka, Kans., to Denison, Tex., connecting there with the Houston & Texas Central. Such a new road would doubtless run via Oklahoma City. On the other hand, a railroad officer is quoted as saying that it is unlikely that construction through Oklahoma will be undertaken because of the Oklahoma constitutional provision affecting railroad consolidations.

It appears as if the Harriman officials are contemplating seriously the building of a north and south line, for it is reported from Austin, Tex., that the Southern Pacific is contemplating the construction of a cut-off either from Giddings to Stone City or from Cameron to Bremond, Tex. This would mean connection and trackage arrangement with the San Antonio & Aransas Pass Railway to Aransas Pass on the Gulf.

BIG CONTRACT LET.

Construction to Begin on St. Louis-Kansas City Electric Railway.

President D. C. Nevin of the St. Louis-Kansas City Electric Railway Co. writes confirming the report that contract has been let to the L. J. Smith Construction Co. of Kansas City to build the line, which will be 250 miles long from St. Louis to Kansas City via Higginsville, Marshall, Columbia and Warrenton. The route is over prairie country, broken in parts. There will be two steel bridges at the Missouri River and a number of smaller steel and wooden bridges over other streams. Connections will be made with all steam and electric roads in St. Louis and Kansas City, and also with the Chicago & Alton, the Missouri Pacific, the Missouri, Kansas & Texas and the Wabash railroads at points between the two large cities.

The directors of the company are D. C. Nevin, president; John H. Berkshire, vice-president; H. V. Johnson, treasurer; H. E. Insley, secretary; J. H. Reeder, C. A. Loomis, W. D. Griffith, George A. Anderson and R. S. Mahan, all of Kansas City; Charles Hoefer, Higginsville, Mo.; P. H. Rea, Marshall, Mo.; J. A. Maxwell, Fayette, Mo.; B. L. Dorsey, Alton, Ill.; W. A. Hamilton, Chicago; L. M. Nevin, St. Louis.

W. I. Allen is general manager and E. M. Stayton chief engineer. The company's office is 1014 Commerce Building, Kansas City.

NEW MEMPHIS TERMINAL.

Illinois Central Will Build, Doubtless This Year—Rock Island and Frisco in It.

The Illinois Central Railroad proposes to build a new passenger station at Memphis, Tenn., and, according to a report from there, President C. H. Markham said during his recent visit that unless the unforeseen and unexpected developed, construction would begin early in the spring. In a dispatch to the MANUFACTURERS RECORD he says that details concerning the terminal are not yet settled.

The new depot will occupy the site of the present union station, and it will cost, it is estimated, says the report from Memphis, \$750,000 or more. The location is at Main street and Calhoun avenue, which is two blocks from the new station that is being built for the Louisville & Nashville and other railroads, also on Calhoun ave. The Rock Island and the Frisco systems, it is said, will use the Illinois Central terminal under a rental arrangement.

WILL SOON BUILD NORTH.

New Orleans, Mobile & Chicago Road Surveying for a Route to the Ohio River.

L. S. Berg, president of the New Orleans, Mobile & Chicago Railway, is quoted as saying that engineers are now making a survey, and that the company will soon begin construction of its long contemplated line north from Middleton, Tenn., to the Ohio River. It is not decided whether it will go to Paducah, Ky., or Evansville, Ind. If to the former, it will connect with the Illinois Central Railroad, and if the latter, with the Frisco line there, the Chicago & Eastern Illinois, for Chicago. There is also the possibility that the extension will build to a connection with the Burlington route at Metropolis, Ill., to which point the latter road has recently constructed an extension. Mr. Berg's company also intends, as previously announced, to construct an extension to New Orleans. Contracts will soon be let for the freight and passenger stations at Mobile.

WILL EXPEND \$6,000,000.

Chesapeake & Ohio is One of the Lines to Continue Its Improvement Work.

President G. W. Stevens of the Chesapeake & Ohio Railway, Richmond, Va., is quoted as saying that the company will spend \$6,000,000 this year for improvements. The rate decision at Washington will not affect the determination to undertake the work.

Last year the double tracking of the Cincinnati division was begun, and it will be completed, there being about 80 miles yet to be laid. This will give the road two tracks from Newport News to Cincinnati. The new office building of the company is to be erected in Richmond, and work upon it will be started as soon as possible. The company has also ordered considerable equipment, including 35 locomotives, 40 passenger cars and 200 flat cars. Ten passenger locomotives and 15 passenger cars have also been ordered for the Hocking Valley line. There will not be any halt in the work projected.

New Equipment, Rails, etc.

The Harriman lines, says a market report, are expected to purchase 100,000 tons of rails for this year's delivery.

The Southern Railway is reported getting prices for the construction of four dining cars.

The Richmond, Fredericksburg & Potomac Railway is reported in the market for 100 freight cars, 50 box and 50 flat.

The Chicago, Rock Island & Pacific Railway is reported about to buy 16 all-steel postal cars and 11 combination mail and baggage cars.

The Pennsylvania Railroad is said to have ordered the construction of 25 passenger locomotives of the K-2 type at its Altoona shops. They will have three pairs of 80-inch drivers, and will be used for heavy and fast service. The shops are just now finishing up an order for an equal number of the same type of engines, which was placed several weeks ago.

The Atlanta & West Point Railway is reported to have ordered six passenger train cars from the American Car & Foundry Co., St. Louis.

The Metropolitan Street Railway Co. of Kansas City contemplates purchasing 50 cars.

The San Antonio (Tex.) Traction Co. expects to buy 10 new cars.

The Atlantic Coast Line is reported getting prices from the American Locomotive Co. for 25 locomotives. The company may also buy freight and passenger cars.

The Pennsylvania Railroad has ordered

from the Westinghouse Electric & Manufacturing Co. nine more electric locomotives to supplement the 24 electric locomotives now used at its New York terminal. They are to be completed by July 1. Each has four pairs of 80-inch driving wheels and four pairs of truck wheels.

The Memphis (Tenn.) Street Railway Co. is reported in the market for 40 or 50 cars.

Southern Freight Terminal.

R. M. Walker of Atlanta is reported to have received the contract to build the inbound freight station and office building of the Southern Railway in that city. It will be on Madison avenue, between Mitchell and Peters streets, and must be finished within a year. There will be a three-story building from the Peters-street viaduct to the Nelson-street bridge, and a six-story building from the latter to the Mitchell-street viaduct. The first floor, which will be on a level with the railroad tracks, and the second floor, which will meet the level of Madison street, will be used for the delivery of freight. Elevators will furnish communication between the two floors. Teams will reach the station on the Madison-avenue level. There will be 70,000 square feet of floor space for the handling of freight. The other floors will be used for offices of the company. The three-story section will be of reinforced concrete, 464 feet long by 50 feet wide. The six-story section will be of steel frame construction, with concrete floors and pressed-brick walls. It will be 232 feet long and 50 feet wide. Additional stories may be added to either section if desired.

Investigating a Proposed Road.

A party of capitalists, escorted by representatives of Megargel & Co. of New York, who are interested in the enterprise, are reported to have visited Pensacola, Fla., recently and to have gone over part of the proposed route of the Gulf, Florida & Alabama Railroad, including the line of the Southern States Lumber Co., running north from Muscogee, Fla., into Alabama, about 60 miles. Among those mentioned as being in the party are Col. H. H. Harvey of Wilkes-Barre, Pa., president of the Wyoming Valley Cutlery Co.; C. M. Dickinson, owner of the Bingham Republican; M. B. Moon of the First National Bank of Detroit; I. L. Meyers of New York, president of the American Cement & Tile Co.; A. S. Blackington of Scranton, Pa., director of the Anthracite Trust Co.; E. A. Burke of New York, J. N. Olyphant of New York, W. C. Jennings of Towanda, Pa.; G. A. Berry and N. C. Harper of New York, and Messrs. Megargel, Hunsinger, Whitehill and Connor, of Megargel & Co., 5 Nassau street, New York.

To Build Railways.

The Fidelity Investment Co., organized at Nashville, Tenn., has applied for a charter and proposes to finance, build, operate and develop urban and interurban railways, electric power plants and industrial undertakings, principally in the South. It is intended to begin business immediately; capital \$200,000; surplus \$100,000. Headquarters will be at Nashville. Among those interested are H. H. Mayberry, John A. Pitts, George M. Ingram, Paul Roberts, F. M. Smith, J. H. Carpenter and H. A. Bailey, Jr., of Nashville; H. U. Wallace and E. F. Wheaton of Chicago; A. L. Knight of Cleveland, O., and others.

Birmingham to Jacksonville.

The Seaboard Air Line, according to a report from Anniston, Ala., is again considering the plan to extend there from Jacksonville, Ala., which is a station on

its line between Atlanta and Birmingham, about 12 miles from Anniston. It is further said there is in view the possibility of continuing the line from Anniston to Columbus, Ga., and thence to a connection with the Seaboard south of there for the establishment of a short route between Birmingham and Jacksonville, Fla. Such an extension would, it is estimated, cost approximately \$9,000,000. It does not appear that any official decision has been made concerning his line, although there were investigations some time ago. W. H. Weatherly of Anniston is reported to be interested in the plan to extend to Columbus.

Houston to Red River.

The Houston & Red River Railway Co., which is promoted by Ed. Kennedy and others of Houston, Tex., and New York, will, according to a letter to the MANUFACTURERS RECORD, build a line 150 miles long from Houston to Rusk, Tex., via Timber, Oakhurst, Trinity and Kennard. The route is over practically level lands, through large tracts of fine virgin timber to enormous deposits of superior iron ore in Cherokee county. Connection will be made at Rusk with the Santa Fe, the International & Great Northern, the Missouri, Kansas & Texas, the St. Louis Southwestern, the Texas & New Orleans and the Texas State railroads.

New Line at Memphis.

Application has been made at Memphis, Tenn., to charter the Memphis & Rugby Railway Co. to build a street-car line from Chelsea avenue to Rugby, a new suburb in North Memphis; capital stock \$50,000. Work is to begin soon. The incorporators include E. H. Coapman, vice-president and general manager Southern Railway, Washington, D. C.; Charles T. Doerr, purchasing agent Birmingham Street Railway Co.; Henry Wetter, president H. Wetter Manufacturing Co.; Luke Seawell, secretary and treasurer of the Weddington Hardware Co., Charlotte, N. C.; Jas. H. Malone and W. J. Francis, president of the Rugby Estates Land Co.

Increased Earnings in Georgia.

Statistics issued by the Georgia Railroad Commission, according to a report from Atlanta, show that the gross earnings of all roads in that State during the fiscal year ended June 30, 1910, amounted to the sum of \$44,171,668.14; operating expenses, \$30,367,657.63; net earnings, \$13,833,340.29. In 1909 the figures were: Gross earnings, \$39,506,090.83; operating expenses, \$28,391,817.46; net earnings, \$11,144,969. The increase in net was nearly \$2,700,000.

Railroad Notes.

The Southern Railway, says a report from Lynchburg, Va., has completed and put in service its cut-off around the city.

The Frisco system is reported to announce the opening for service of its extension from Brady to Menardville, Tex., 37½ miles.

The House of Representatives at Washington has, says a telegram, voted to install a monorail electric railway in the subway leading from the Capitol to the House office building.

The Gallia & Meigs Electric Railway Co. of Gallipolis, O., is reported chartered by Thomas W. Jackson of Belpre, O., and others to build from Gallipolis to Middleport and to extend later to Parkersburg, W. Va.

An officer of the Marshall & East Texas Railway in a letter confirms the report that the directors have authorized the issue of \$5,000,000 of bonds for improving the present line between Marshall and

Winnsboro, Tex., and for such extensions as may be decided upon hereafter. It is not yet settled when any of the work will be started. J. E. Votaw is general superintendent and R. J. Lockwood chief engineer at Marshall, Tex.

A Thomasville (Ga.) dispatch says that the Messrs. Upchurch of Raleigh, N. C., who own mills near Metcalfe, Ga., proposes to build a railroad from the latter point to Havana, Fla., about 60 miles, and will soon begin work.

A dispatch from Memphis says it is rumored that the St. Louis Southwestern Railway has acquired the Arkansas, Louisiana & Gulf Railroad, and will extend it north from Hamburg, Ark., to Pine Bluff and south from Monroe, La., to Alexandria.

The Rock Island system, it is reported, has acquired through one of its constituent companies control of the St. Paul & Des Moines Railroad, which will give, it is said, a short route between Kansas City and St. Paul. A short piece of construction will be necessary to the plan.

An officer of the Central of Georgia Railway is reported as saying that the work of relaying the main line between Birmingham and Columbus with heavier rails is rapidly proceeding and the forces on the job are being increased. The new rails weigh, it is said, 90 pounds per yard.

R. J. Dunham, chairman of the board of the Metropolitan Street Railway, Kansas City, Mo., is reported as saying that the company will spend \$1,000,000 for extensions and other improvements, which will include new machinery, new cars, etc. About \$350,000 will go into the new equipment.

A dispatch from Memphis, Tenn., says that ground has been broken for the erection of a \$200,000 freight depot near Broadway and Main street for the Louisville & Nashville Railroad. It will be of fireproof construction. This is one of the improvements of the Memphis Union Station Co.

The Mobile & Ohio Railroad, says a report from Mobile, has filed a mortgage to secure \$1,200,000 of 5 per cent. bonds, which are to be sold to cover improvements made to the company's docks at Mobile, the erection of warehouses and other buildings, betterments to the roadbed and purchase of new equipment.

The Hawkinsville & Western Railway Co., which proposes to build from Hawkinsville to Perry, Ga., 22 miles, has been authorized to issue the \$100,000 of common stock and \$200,000 of bonds desired for the purpose of construction. T. B. Ragan of Hawkinsville is president. It is reported that about five miles of grade are completed.

An official of the Nashville, Chattanooga & St. Louis Railway writes that contract has been let to John Brady & Co. for the construction of two and one-half miles of line from East Hickman to West Hickman, Ky., to take the place of the present line there, which will be abandoned on account of encroachments by the Mississippi River.

J. B. Westfall, Harrisville, W. Va., who was recently reported to have purchased the unfinished line of the railroad between Harrisville and Cornwallis, writes that it will be completed this year. It will be six miles long between the points named, and will necessitate two bridges. Construction is through rough country.

Returns already in show that 15,924,088 tons of coal were mined in Alabama in 1910, and it is fully expected that final figures will bring the total up to 16,000,000 tons.

FOREIGN NEEDS

Machinery and equipment wanted abroad are mentioned in many letters received by the MANUFACTURERS RECORD, which is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. For the benefit of our subscribers seeking foreign trade we publish the following extracts from recent letters:

Wants Screws for Japan.

Tomokiro Okuda, Osaka, Japan, writes the MANUFACTURERS RECORD:

"Iron wood screws have heretofore been mostly imported into our market from Britain and Germany, and sometimes from Belgium, but very little from your country. There is in Europe a syndicate of screw manufacturers, and consequently the price has been raised. Our market has been demanding the screws at cheap prices, and for this reason dealers here want to import American screws. Unless the European syndicate is dissolved or your manufacturers raise prices the importation of wood screws from your country will increase year after year, and I heartily recommend to the screw manufacturers of your country to put their best energy in the sales of their respective brands in our market. I and my partner have induced one of the most powerful hardware dealers to put his very best energy into the sale of American screws, and he requests me to find out one of the responsible screw factories who can quote the most beneficial discount. I shall be obliged if you will write to the following factories and request them to write me direct, letting me know their best possible discount c. i. f. Kobe (from Nettlefold's List), and to send samples. I shall be glad to do business direct or through commission houses, and in case of direct business I shall always send letters of credit on the Y. S. B. Ltd., of New York: Chicago Screw Co., Chicago, Ill.; P. & F. Corbin, New Britain, Conn.; Detroit Screw Works, Detroit, Mich.; Graham Nut Co., Allegheny, Pa.; National Screw & Tack Co., Cleveland, O.; Charles Parker Company, Meriden, Conn.; Sandusky Tool Co., Sandusky, O.; Russell & Erwin Manufacturing Co., New Britain, Conn.

"I am now importing in general 150,000 gross flat-head iron wood screws, and if the terms are profitable I can induce our dealer to sell only American screws and to make contract with the factory I select. I shall be also much obliged if you will kindly ask them to let me know how much special rebate they can allow besides the discount for one year's contract, and whether they can allow the sole agency in Japan, and if can be allowed, on what terms and conditions I must do transactions."

Roofing for Venezuela.

Pedro Henriquez, Aroa, Venezuela, care of Boulton & Co., Port Cabello, writes the MANUFACTURERS RECORD:

"On being commissioned by the committee in charge of the construction of a new church (its members being divided in their opinion as to the best market in which to obtain a zinc roofing), I thought it a good opportunity to show my desire to be of service to any of your houses by making all possible efforts so that your market should have the preference in this purchase (54½ q. q. 5 5450 pounds of galvanized corrugated zinc roofing), and hasten to write you on the subject, hoping you will kindly address my application to your most respectable concerns dealing in or manufacturing this item.

"To save time they are politely requested

to inform me: 'Cost f. o. b. New York of 5450 pounds of corrugated galvanized zinc roofing in sheets 6 feet by 8 feet 3 inches corrugation, thickness about 25 E. S. W. G., or about 9 sheets in every 100 pounds, shipping freight and charges to Pto. Cabello; terms and conditions of the house and commission paid to me by him, and to grant me the privilege of being his sole agent in Venezuela.' Any concerns wishing to attend the purchase should at the earliest convenience send me their latest edited illustrated catalogue, showing price, discount, etc."

American Products for Spain.

Fausto Mas, No. 18 Jerusalem street, Valencia, Spain, writes the MANUFACTURERS RECORD:

"Being desirous of establishing business relations with your people with the view to introducing American products into this country, I take the liberty of asking for your earnest co-operation, subject, of course, to your own judgment in the matter. My desire is to find a good and substantial firm engaged in finding market for American novelties of ready sale. I wish to work for the benefit of both parties under mutual guarantees on commission or on my own account in pushing acceptable goods. As I operate on commission and as agent in general, I stand ready to take hold of such articles as present themselves without preference to one or the other class.

"I would like to know what is actually needed to equip an elegant ladies' hair-dressing parlor here. Could you give me the address of a firm that might help me?"

Hardware for Leather Bags.

Nicolas Georgiades, Georgiades Han, Sirkedji, Stamboul, Constantinople, Turkey, writes the MANUFACTURERS RECORD:

"At the present time there is an unusual demand in this market for clasps and the metal frames of leather bags, portmanteaux, etc. The leather part of these articles is manufactured in this country, but as for the metal frames, these have to be imported from abroad. I imagine that this particular industry is well up in your centers, and, judging from the sparsely satisfied demand for the above-named articles, I should say that the European outputs of same cannot suffice for export into our markets, too. I should therefore be only too glad to give a chance with American manufacturers, and to this end I should ask you the favor of supplying me with a list of names of manufacturers of clasps and metal frames with handles."

Machinery for Enameling, Etc.

Laviada & Co., S. en C. (successors) Gijon, Spain, write the MANUFACTURERS RECORD:

"We are engaged principally in manufacturing hollow ware of iron and steel enameled goods, porcelain-lined ware for the kitchen and for sanitary purposes, etc., and employ in our shops 500 hands. We would like to get advanced information in regard to our industry and improvements. Enameling equipments, enamels machines for stamping and molding bathtubs, closet bowls and flow pipes for water and for water-closets, etc. We would like to know something about new furnaces and latest ideas in regard to enameling bathtubs."

Wants Machine Tools.

Allen H. Foster, Apartado 225, Mexico City, writes the MANUFACTURERS RECORD:

"G. E. Starkweather, Box 180, Tampico, Tams, Mexico, is in the market for lathe, drill press, shaper, planer and grindstone."

MINING

Miners' Dwellings Costing \$1,000,000.

The Consolidation Coal Co. of Baltimore is proceeding with plans for the development (previously detailed) of its 100,000 acres of coal land in Pike county, Kentucky. In connection with this development the company has issued bonds for \$40,000,000, which is the amount that will be invested in this Kentucky development. Construction will include about 1000 miners' dwellings of from two to eight rooms each, costing about \$1,000,000, and this work will extend over a period of two or three years. The company has already built a sawmill to cut and prepare lumber for the various mining plant buildings that will be erected. All purchases for this development will be made through A. T. Watson, purchasing agent, Fairmont, W. Va.

Darby Coal Mining Co.

The Darby Coal Mining Co. of Knoxville will develop a 1500-acre tract of coal lands at Darbyville, Lee county, Virginia, and machinery will be contracted for by May 1. The machinery needed will be for a daily output of 600 tons, and will include direct-current generators and motors for haulage, pump, fans, washer and machine shop, all costing about \$25,000. The officers of the company are Jas. R. McDowell, president; Wade Barrier, secretary and treasurer; C. H. Thompson, vice-president and manager, each of Knoxville, Tenn. R. E. Hill is constructing engineer, with address at Darbyville, Va.

Kentucky Coal Land Purchase.

Last week the MANUFACTURERS RECORD referred to a dispatch which stated that 40,000 acres of Hopkins county (Kentucky) coal lands had been sold for \$400,000 by L. S. Jackman of Henderson, Ky., and associates. Mr. Jackman advises the MANUFACTURERS RECORD that the purchasers have not as yet determined details for the development and that information can be obtained by addressing either D. E. Mitchell of Lebanon, Tenn., or C. H. Judkins, Garfield Building, Cleveland, O.

Developing Georgia Pyrites.

The Georgia Pyrites & Manufacturing Co. has been incorporated with \$250,000 capital stock to develop pyrites ore lands near Villaria, Ga. This development has begun. The company's officers are N. J. Grizzard, president, and W. W. Wisdom, treasurer, both of 529 Candler Building, Atlanta, Ga.

New Davis Coal Mines.

The Davis Coal & Coke Co. of Thomas, W. Va., is now mining at its Pendleton Run and Snyder Run openings. All machinery has been installed and the two mines will be developed to a daily output of 1000 tons each.

To Develop Pyrites.

The Georgia Pyrites & Manufacturing Co. of Atlanta has been incorporated with a capital stock of \$250,000 for the purpose of developing pyrites properties. Messrs. N. J. Grizzard, R. T. Burnley and W. W. Wisdom were the incorporators.

Furniture Factory Improvements.

The Forest Furniture Co. of North Wilkesboro, N. C., has completed various improvements lately, including the construction of a 25,000-gallon steel tank, the installation of a complete sprinkler equipment, the enlargement of drykiln, etc. Between \$6000 and \$7000 has been invested in these betterments.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

The Meritas Mills.

The Meritas Mills of Columbus, Ga., referred to last week, has begun the production of cotton cloth used as the basis of oilcloth. J. T. Broadbent, the company's agent, has sent the MANUFACTURERS RECORD a description of the plant, in part as follows:

"This mill is one of the most modern in the country, and its officials have invested considerable money in providing the best conditions for the health of operatives. In the first place, the location of the mill at North Highlands is ideal as a place to live, being high, dry land and perfectly healthy in every particular. The sanitary conditions have been taken care of in an exceptional manner, and the system of ventilating, heating, humidifying, etc., installed by S. W. Cramer of Charlotte is designed to wash all the air which is blown into the mill and either heat or cool same as the conditions may require. The electric equipment includes the most modern designs built by the General Electric Co. of Schenectady, N. Y., and represents an equipment particularly adapted for safety as well as efficiency. About 500 horsepower will be needed to commence with, but enough available capacity is provided to accommodate practically a duplicate installation when the mill is enlarged to 25,000 spindles. The construction of the mill is such that the per cent. of light will not be exceeded in any cotton mill in the country. In order to supplement this, the electric lighting will be of the tungsten type, equipped with holophane reflectors, which will represent one of the most up-to-date equipments in every sense of the word. Electricity for power will be taken from the Columbus Power Co. The main mill is two stories for carding and spinning, and the weaving department is of the saw-tooth design, which is acknowledged to give the best light for weaving purposes. At the same time, proper care has been taken for ventilating this department with a view to making the temperature as near uniform as possible at all times.

"This mill is expected to run continuously, and all precautions have been taken to prevent any serious shutdowns, this being principally the object of the safety devices in the electrical equipment, which is supplemented by equal precautions in the construction of the various parts of the mill usually considered the greatest fire risks, together with a very complete equipment of fire protection apparatus. The entire mill will be equipped with automatic sprinklers, including the opening and spinning departments, which are already fortified by fireproof covering of expanded metal lathing and cement on all surfaces that are liable to be affected by fire. It might also be mentioned that the transformer-house is of strictly fireproof construction, and the usual manner of using wood for window sills, lintels and similar parts of the building has been replaced by reinforced concrete.

"The sprinkler system will be supplied from two sources, namely, a 60,000-gallon steel tank mounted on a 90-foot tower, and a fire pump of 1000 gallons per minute capacity, which will take its supply from a reservoir of concrete and having a capacity of 20,000 gallons of water for fire service.

"The service water used in the mill will be supplied from an 8000-gallon steel tank, supported in the same tower as the larger tank, and will be connected with all de-

partments of the mill for general purposes. The drinking water will be supplied from the city of Columbus, which furnishes filtered water."

Buying Bagging and Ties.

Brown Crinkley, manager Harriman Cotton Mill Co., Harriman, Tenn., writes to the MANUFACTURERS RECORD:

"In your issue of December 22, 1910, you published an article entitled 'Southern Men Discuss Cotton Marketing Methods.' While the marketing of our products is no doubt one of the very important points of our business, one other point needs as much or more attention, and that is, the proper way to buy our cotton. The point I wish to raise is, Why should we pay the farmer or ginner \$3.60 for the bagging and ties on a bale of cotton? They cost them \$1 a bale, and at 15 cents a pound they sell them at \$3.60 a bale, a net profit to the farmer or ginner of \$2.60. On this year's crop the profit will be \$29,900,000. We should buy our cotton as the English mills do, with the bagging and ties off. We have to furnish the cases to ship our yarns in, and why should not the farmer furnish the wrapping for his bale of cotton? We would like to hear the opinion of some others along this line if you think it worthy of consideration."

Duncan Cotton Mills.

The Duncan Cotton Mills of Greenville, S. C., has been incorporated with \$1,000,000 capital stock by J. Adger Smyth, Jr., Ellison A. Smyth, H. J. Haynsworth and C. O. Allen. This company was announced recently as to organize with J. Adger Smyth, Jr., as president, and to build a mill of 50,000 spindles and 1500 looms. It has purchased 225 acres of land as site for the mill, and J. E. Sirrine of Greenville is the architect-engineer in charge.

Oconee Company Increasing Capital.

The Oconee Cotton Mills Co. of Westminster, S. C., will increase its capital stock from \$300,000 to \$550,000. This company now has 13,000 ring spindles, 180 broad looms, 182 narrow looms, etc., driven by steam power on the production of fine cottons.

Contemplates a Knitting Mill.

W. G. Flake of Conyers, Ga., contemplates building a knitting mill, the machinery to be electrically driven. He wants data and prices on the necessary equipment.

Textile Notes.

It is reported that Charles Schreiner of Kerrville, Tex., is planning to organize a company with a capital stock of from \$50,000 to \$75,000 to build a hosiery knitting mill at San Antonio, Tex.

W. A. Ellington of Chapel Hill, N. C., has about completed the installation of the machinery for his hosiery mill at Sanford, N. C. The plant has 41 knitters and accompanying equipment, driven by electricity, for manufacturing hosiery.

T. W. Garbutt of Fitzgerald, Ga., requests the MANUFACTURERS RECORD to state that he is not connected with the building of a cotton mill at Ardmore, Okla. Recent reports mentioned his name in connection with such an enterprise.

The Eureka Manufacturing Co. of Lincoln, N. C., has purchased and will install two new cards and one 180 double-cylinder twister, which will about double present production. These machines are used for making waste yarns from cotton waste. They were purchased from the Smith & Furbush Machine Co. of Philadelphia.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Hacker Manufacturing Co.

The Hacker Manufacturing Co. of Charleston, S. C., with mills at Ehrhardt, S. C., sends the MANUFACTURERS RECORD a statement regarding the company's recent purchase of the Ehrhardt properties. John B. White, the company's secretary-treasurer, writes:

"We have purchased the saw and planing mills, together with timber and timber rights, of the Conrad Ehrhardt Company of Ehrhardt, S. C. The price paid for this property and other timber will amount to about \$70,000, and we expect to expend some \$25,000 in building railroad, constructing new sawmill, etc. New mill will have a capacity of 30,000 feet per day. The timber purchased consists principally of virgin long leaf yellow pine, and is considered one of the most valuable in this section.

"The officers of our company are: President, G. B. Buell; vice-president, J. B. Davis; secretary and treasurer, John B. White; manager of door, sash and blind plant, P. J. Prendergast; manager of sawmill department, G. G. Creighton. All orders for machinery and equipment have been placed; principal office at Charleston; saw and planing mills and drykilns at Ehrhardt, S. C.

"The capital stock of the company has been increased from \$40,000 to \$125,000, in order to handle this addition to our business."

Riceland Lumber Co.

The Riceland Lumber Co. of Houston has been incorporated with a capital stock of \$1,000,000 and the following officers: President, J. E. McAshan; vice-president, Edgar Odell Lovett; secretary, E. Raphael; treasurer, B. B. Rice. It is understood that this corporation will acquire title to 45,000 acres of virgin pine timber land in Calcasieu parish, Louisiana, and gradually transfer its securities to J. M. West of Houston and associates, who were reported last week as having purchased these lands at \$4,500,000 from the Wm. M. Rice Institute of Houston, of which Mr. Lovett is president. These lands were a part of the different properties willed to the institute by the late Wm. M. Rice, and are to be developed.

New Lumbering Enterprise.

The MANUFACTURERS RECORD is advised of plans having been completed for the development of the pine timber located on 1800 acres of land on the Cape Fear River near Wilmington, N. C., through which port the lumber will be shipped. C. R. Jordan of Gulf, N. C., has secured the timber and will install a sawmill, drykilns, tramway, etc., for a daily capacity of from 15,000 to 20,000 feet of lumber. He states there is from 7,000,000 to 8,000,000 feet of timber on the property, and that he is in the market for the machinery and rails required for the plant mentioned.

Daily Capacity 60,000 Boxes.

The Forrester-Nace Box Co. of Kansas City will build a plant for a daily output of 60,000 wooden boxes. It is having plans and specifications for a reinforced concrete and brick building prepared by Smith, Rae & Lovett of Kansas City, and contract for erection has been awarded to Harry Stevens. The box machinery will be driven by electricity.

The Interstate Cottonseed Crushers' Association will hold its next meeting in New York June 7-9.

COTTONSEED

COTTONSEED PRODUCTS.

Preliminary Census Summary of the Industry in 1909.

A preliminary statement of the National Census Bureau showing the general results of the 1909 census of the establishments crushing cottonseed presents a comparative summary for the years 1909, 1904 and 1899 of the quantity of crushed seed and crude products by States, together with some comparative statistics of exports. In collecting the data for the census of 1909 manufacturers were requested to prepare their returns for the calendar year 1909, but were given the privilege of submitting reports for a different twelve-month period when the business year of the establishments made it more convenient so to prepare the returns. Notwithstanding the fact that the manufacture of cottonseed products is a seasonal industry, the practice of the manufacturers in making their returns was not uniform, some submitting reports for the season of 1908-1909, some for the calendar year 1909, and others for the season of 1909-1910. The crushing season of the cottonseed-oil mills may be said to extend over the eight-month period from September 1 of one year to May 1 following. Thus, while the statistics of this report do not present the status of the industry for any one season, yet they do relate to and properly present the conditions with regard to a complete twelve-month period.

The number of active establishments increased from 357 in 1899 to 809 in 1909, or 127 per cent. This increase in number has been very general throughout the several States, oil mills having been established quite rapidly in new cotton-growing territory as well as multiplied in the older communities.

The quantity of cottonseed crushed during the last decade increased only 54 per cent., but the increase in the cost of the seed to the manufacturer was 173 per cent., and points to a greatly improved source of revenue for the producer, as the value of cottonseed per ton at the census of 1899 was returned at \$11.55 and the value at this census is reported at \$20.41 per ton.

The increase in the total value of crude products during the decade is shown to be from \$42,412,000 to \$107,538,000, or 154 per cent.

While the increase in the quantity of seed crushed was 54 per cent., the production of oil increased 70 per cent., indicating the employment of better methods and greater economy in the use of machinery, natural resultants from the economic progress of the industry. The increase in the quantity of cake and meal is shown to have been 89 per cent., which is probably accounted for in part by the establishments during the decade of a number of mills operated under the "cold-process" system, by which the hulls and meats are pressed together and disposed of as cake and meal. Another factor to be reckoned with in effecting this percentage is the recent practice by many establishments of mixing varying quantities of hulls with the cake in grinding, especially when the product is designed for sale as a feedstuff. These conditions also account for the very slight percentage of increase in the production of hulls.

Another interesting feature brought out by the statistics is the increase of 206 per cent. in the quantity of linters saved from reginning the seed for oil extraction. The linter fiber is in commercial demand among certain manufacturers who used the better grades of cotton before the present era of high prices in that staple. A

double economy is thus effected by the greater production of linters and by the larger percentage of oil saved when the seed has been closely reginned.

The value of crude oil manufactured in 1899 represented 50 per cent. of the total value of products, compared with 51 per cent. in 1909; hulls 8 per cent., compared with 7 per cent., while the relative values of meal and linters remained the same.

According to the statistics shown in the statement, the average seed crush per establishment in 1899 was 6945 tons, compared with 4731 tons in 1909, showing the practice in recent years of constructing smaller mills. Cottonseed-oil mills may be divided into two classes: Those of large capacity erected at railway centers and the small mills built in towns with indifferent transportation facilities and depending upon the local supply for their seed. Each class of mills has its advantage; the larger mill has more competition in securing its seed supply, but, on the other hand, it can readily draw from distant localities.

The problem of storing and properly preserving the seed is a factor which is also contributing to the erection of the smaller local mills. The value of the oil, especially, depends upon the condition of the seed when it reaches the mill, and the natural tendency is to establish smaller cottonseed-oil mills in connection with gineries, thus permitting the storage of the seed at the time the lint is removed. The largest mills, according to the quantity of seed crushed, are found in Tennessee, followed by those in Arkansas and Mississippi.

The development of the cottonseed products industry during the past decade is more clearly brought out by the following comparative statistics for 1909 and 1899:

Seed Crushed, the Total Value and Quantities of the Several Kinds of Crude Products, by States, for 1909 and 1899.

State.	Year.	No. of estab-lish-ments.	Seed crushed (tons).	Crude products.					
				Total value.	Oil (gallons).	Meal and cake (tons).	Hulls (tons).	Linters (pounds).	
Alabama.....	1899	71	310,890	\$8,714,000	13,061,400	141,200	95,300	13,770,400	
	1909	27	172,106	2,952,000	6,705,000	60,400	80,200	4,331,000	
Arkansas.....	1899	44	278,300	7,700,000	11,435,400	116,700	94,200	12,889,500	
	1909	29	190,000	3,189,000	7,225,000	65,500	90,700	4,613,500	
Florida*.....	1899	5	19,500	514,000	808,700	10,600	4,200	688,200	
Georgia.....	1899	145	594,100	17,084,000	26,181,500	261,700	188,300	26,040,100	
	1909	46	271,800	4,787,000	10,606,700	91,000	132,300	6,398,800	
Louisiana.....	1899	41	155,500	4,497,000	6,527,600	70,700	45,600	7,282,900	
	1909	21	251,000	4,398,000	9,692,600	91,300	114,400	6,133,700	
Mississippi.....	1899	89	539,400	15,463,000	24,386,200	244,700	181,800	23,976,500	
	1909	41	394,700	6,871,000	15,093,600	141,500	185,100	9,199,700	
Missouri*.....	1899	4	21,500	648,000	919,000	9,300	7,600	941,300	
North Carolina.....	1899	53	214,400	6,199,000	9,611,400	92,300	68,500	8,442,500	
	1909	20	107,700	1,880,000	4,388,300	36,100	52,100	2,150,000	
Oklahoma.....	1899	39	186,300	5,180,000	6,818,000	78,700	62,300	9,584,200	
	1909	12	52,800	856,000	1,868,900	18,700	25,500	1,199,500	
South Carolina.....	1899	102	546,500	10,170,000	15,745,500	154,700	103,800	14,356,200	
	1909	48	156,700	3,444,000	6,162,200	58,000	71,500	3,223,900	
Tennessee.....	1899	20	179,500	5,082,000	7,525,400	77,000	59,400	8,533,500	
	1909	15	168,300	2,737,000	6,454,100	59,600	79,500	4,068,500	
Texas.....	1899	191	916,100	25,094,000	33,497,800	395,800	312,200	46,994,500	
	1909	102	692,400	11,520,000	24,354,700	253,000	328,100	15,544,400	
	1909	15	44,500	2,246,000	1,809,300	18,500	16,000	2,012,300	
All other States.....	1899	35	21,700	378,000	834,600	8,700	9,400	419,000	
United States.....	1899	809	3,827,300	\$107,538,000	158,328,500	1,674,500	1,269,200	175,512,100	
	1909	357	2,479,400	42,412,000	93,325,700	884,400	1,169,200	57,272,000	

*Included in "All other States" in 1899.

Includes establishments distributed as follows: Illinois, 2; Kansas, 1; Kentucky, 2.

Includes establishments distributed as follows: Florida, 1; Illinois, 1; Kansas, 1; Missouri, 2.

The States showing the greatest development in the industry, as indicated by the actual increase in number of establishments, are: Georgia, where the number has grown from 46 in 1899 to 145 in 1909, or 215 per cent.; Texas, from 102 to 191, or 87 per cent., and South Carolina, from 48 to 102, or 113 per cent. Texas leads in total value of products, with 23 per cent. of the output of the whole country; Georgia, Mississippi, South Carolina and Alabama follow in order.

During the decade the real advance of the cottonseed products industry has possibly been attributable more to the development in the refining processes than to and other cause. Although the machinery in the crushing mills has undergone many improvements, the process itself is still practically what it was a quarter of a century ago. Hence it is due to the progress in refining methods, rather than to improvements in the seed-crushing process, that the products are today quite superior to what they were even a decade ago.

With the improvements in refining methods in recent years new uses for cottonseed oil have been developed, among the most important of which is the manufacture of lard compound, which is a most palatable and economical food. So large a percentage of our home consumption of cottonseed oil is used in the lard compound that the value of the oil varies with the supply of lard; hence cottonseed oil has greatly profited by the increase in the value of the hog products during the last few years.

The leading foreign markets for American cottonseed oil and cake and meal, together with a general idea as to the trade, is shown in the following comparative statement of exports in 1909 and 1899:

Total Value, Quantity and Value of Exports of Cottonseed Oil and Cake and Meal, by Countries to Which Exported, for the Year Ending December 31, 1909, and 1899.

Country.	Year.	Total value.	Cottonseed oil.		Cottonseed cake and meal.*	
			Quantity (gallons).	Value.	Quantity (tons).	Value.
United Kingdom.....	1899	\$3,366,976	4,539,966	\$1,839,673	55,804	\$14,394,400
	1909	4,280,148	4,986,120	1,141,192	158,629	3,138,956
Germany.....	1899	5,212,246	2,988,551	1,221,372	148,535	3,990,874
	1909	4,800,581	4,144,951	1,078,363	190,424	3,722,218
France.....	1899	1,763,773	3,900,382	1,621,556	5,662	142,217
	1909	4,010,976	15,093,626	3,780,449	12,971	230,521
Italy.....	1899	3,582,905	8,069,511	3,582,905
	1909	274,435	1,065,776	274,435
Netherlands.....	1899	4,660,211	9,006,069	3,950,894	26,125	709,317
	1909	3,383,819	8,454,066	2,456,293	46,685	927,526
Denmark.....	1899	3,770,170	501,873	210,282	139,896	3,559,888
	1909	2,803,250	604,551	152,394	136,579	2,650,893
Other Europe.....	1899	2,649,950	5,151,794	2,224,403	16,552	425,547
	1909	2,446,127	8,704,608	1,908,171	26,509	537,954
Canada.....	1899	801,992	1,747,326	773,716	971	28,274
	1909	142,328	481,621	127,830	661	14,498
Mexico.....	1899	1,771,928	4,846,113	1,771,928
	1909	702,682	3,553,191	701,148	64	1,534
Central and South America.....	1899	1,730,759	3,556,246	1,730,759
	1909	609,504	2,043,170	605,105	194	4,390
Other countries.....	1899	917,817	1,296,004	539,579	13,767	378,238
	1909	251,479	917,740	250,755	36	724
Aggregate.....	1899	\$30,227,827	45,514,435	\$19,567,607	497,212	\$10,600,700
	1909	23,705,323	49,969,420	12,476,135	571,852	11,229,188

*The figures for cake and meal for 1899 are for the fiscal year.

The statistics of exports of cottonseed oil are especially interesting when associated with those of production for the

a stock food by dairymen. While a large percentage of the meal retained in the United States is used either directly as a fertilizer or as an ammonia base in the manufacture of commercial fertilizers, its use as a feedstuff is rapidly increasing, and its employment for this and other superior purposes, with the resultant increase in value, must tend to reduce its immediate use for fertilizing.

Choctaw Cotton Oil Co.

The Choctaw Cotton Oil Co. of Shawnee, Okla., is planning to erect a modern four-press oil mill at Calvin, Okla. This plant will cost approximately \$90,000. The officers of the company are F. J. Phillips, president; J. S. Blackmon, vice-presi-

dent; P. A. Morris, secretary and treasurer. Inquiries regarding the machinery and plant should be addressed to the general office at Shawnee.

New Phosphate Rock Process.

According to a letter to the MANUFACTURERS RECORD from S. B. Newberry, vice-president and general manager of the Sandusky Portland Cement Co., Bay Bridge, O., he has succeeded in demonstrating that by his process the "phosphoric acid of phosphate rock can be brought into practically complete citrate soluble form at a cost very much lower than that of acid phosphate." Mr. Newberry has secured patents on this process, and writing of it he says:

"My product is also a dry powder, permanent and free from all tendency to deteriorate on storage, and in convenient form for shipment. From phosphate rock containing 32 per cent. total phosphoric acid I obtain a product containing at least 31.5 per cent. citrate soluble phosphoric acid and less than one-half per cent. insoluble phosphoric acid."

The demonstrations made have been on a small manufacturing scale, but Mr. Newberry is satisfied that the process will work on a commercial scale, and arrangements are being made looking to the building of a factory near Cincinnati, which it is hoped to have in operation by July next. In association with the patentee Geo. R. Fishburne of Charleston, S. C., and H. N. Barrett of Bay Bridge, O., have taken part in the development of this process. In view of the extent of the phosphate rock industry in the South, anything that would make a radical improvement in the handling of phosphate rock, making it available for commercial fertilizers, is a matter of widespread interest.

The steamer Suwanee, built at a cost of about \$400,000 for the Merchants & Miners' Transportation Co., was launched last week at Camden, N. J. The vessel, which is 333 feet over all, will be used for the Baltimore-Jacksonville-Savannah trade of the company.

MECHANICAL

Turbine-Driven Centrifugal Pumps.

Centrifugal pumps direct connected to steam turbines are being put to a variety of uses, especially in connection with power-house work. There is a field for

The high speeds at which centrifugal pumps operate compared to the reciprocating units make it possible to obtain the same capacity with a much smaller pump. The usual practice is to have both turbine and pump mounted on a common base plate to which each is securely bolted. With a flexible coupling connecting the two shafts it is possible to transport the entire outfit

bines manufactured by the Terry Steam Turbine Co., with work at Hartford and general sales office at 90 West street, New York. Illustration Fig. 1 is a view of a multistage Jeaneville centrifugal pump driven by a Terry steam turbine for boiler feed; Fig. 2, single-stage pump and turbine, with covers lifted; Fig. 3, single-stage centrifugal pump for large volume

is made to pass alternately through a bucket and the return chamber until its energy is completely dissipated. Thus the velocity is transferred to the rotor in several distinct impulses, each acting on a different bucket in turn, and hence the resulting peripheral velocities are far lower than in the case of the original single-stage turbines. These turbines are usually supplied with two or more nozzles, each controlled by a hand valve. Additional power may be secured by opening more nozzles. The number of nozzles in operation does not affect the speed, as this depends solely upon the initial pressure and the pressure of the exhaust.

The governor is of the fly-ball type, mounted on the end of the horizontal shaft and completely enclosed, so that there is small possibility of its being damaged. The design is such that should an accident happen to the governor the throttle valve is promptly closed, so that running away is an impossibility.

Aside from its compactness and light weight, the chief recommendation of the turbine to the contractor is its simplicity. The only mechanism outside the casing of the machine is the set of levers leading from the governor to the governor valve on the steam intake pipe, and these are constructed of heavy and durable sections. The fact that there is no high-pressure steam present inside the casing practically precludes the possibility of steam leakage. The glands need not be so tight as would be the case with high-pressure steam, and therefore the possibility of the shaft seizing or becoming scored by the packing is reduced to a minimum.

In all kinds of construction work below the ground level the troubles caused by seepage are usually the most important,

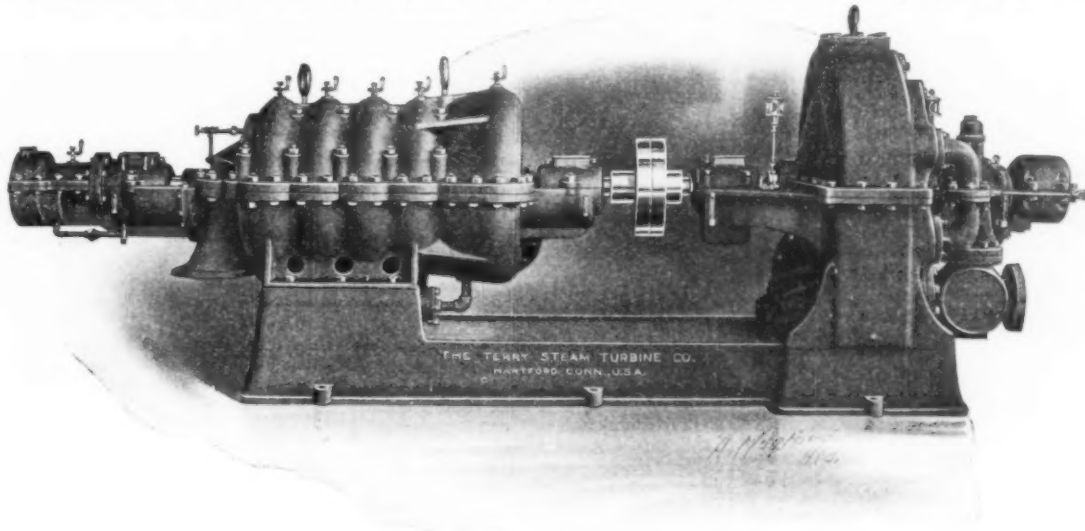


FIG. 1.—TURBINE-DRIVEN CENTRIFUGAL PUMPS.

this unit which has not perhaps been as thoroughly exploited as its virtues deserve; that is, for pumping out foundation pits, caissons and cofferdams. A great advantage of these units for work of this description is ability to stand "hard knocks." Both turbine and pump are so exceedingly simple and strongly built that they are most adaptable to the rough-and-ready installa-

with little trouble. When set in place it is only necessary to connect the water pipes for pump and the steam and exhaust line for turbine.

One such unit operating at 1500 revolutions per minute will handle 300 gallons per minute against 55-foot total head. This is a three-inch pump; that is, the diameter of discharge line is three inches. The

of water and low head; Fig. 4, multistage turbine-driven pump for high pressures; Fig. 5, turbine-driven 15,000,000 Buffalo steam pump in service in steel mill for circulating water.

The idea is prevalent that steam turbines must either run at tremendously high speeds (20,000 or 25,000 revolutions per minute) or else must be multiple-stage

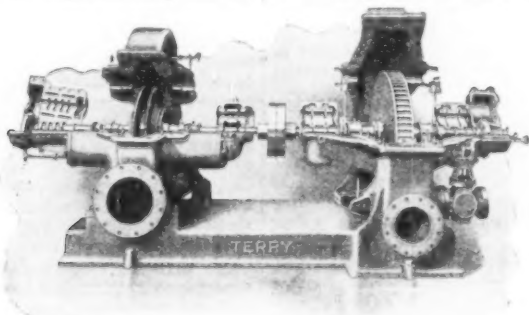


FIG. 2.—TURBINE-DRIVEN CENTRIFUGAL PUMPS.

tions found in construction work. Heat, cold and dampness affect their operation not at all, and it is not necessary to have either very dry steam for operation of turbine or water free from grit and small stones for pump, there being no valves on either machine, and the moving parts consisting simply of rotor of the turbine and impeller of the pump. There is practically

pump itself stands about 16 inches in height, and the diameter of impeller is only about eight inches. Of course, for service of this kind a single-stage pump would be used, as a greater head than 100 to 150 feet is practically never met with, and a single-stage pump of this kind is capable of operating against a pressure of 60 to 50 pounds without trouble. For higher pres-

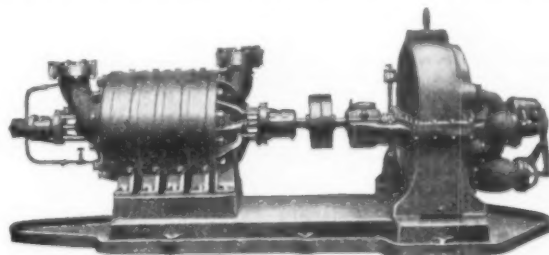


FIG. 4.—TURBINE-DRIVEN CENTRIFUGAL PUMPS.

machines. This idea is due to the impressive speeds which were attained by the first single-stage turbines, where the entire velocity of the steam was given up to the rotor of the turbine in one passage through the buckets. In the turbines illustrated, the advantage of compactness of a single-stage machine is combined with the moderate speeds of a multiple-stage turbine by

and the absolute necessity for keeping such work free from water should make the question of a proper pumping outfit a paramount one to the contractor. Already the centrifugal pump is being used largely for dredging, digging dirt, gravel and stones from the bottom of a waterway. It is essentially the machine for handling large quantities of water which is laden with

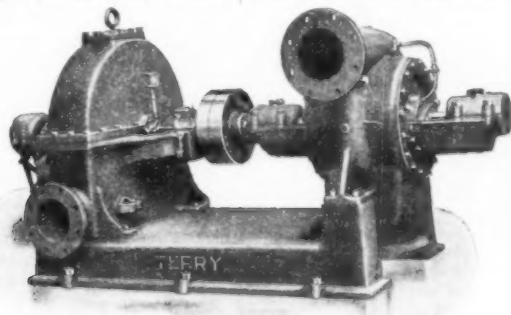


FIG. 3.—TURBINE-DRIVEN CENTRIFUGAL PUMPS.

nothing to get out of order in either machine, so that repairs are reduced to a minimum. In construction work it is essential to have machinery which can be moved about with the least amount of labor, and the light weight of the turbine-driven pump is a strong argument in its favor.

tures than this it is usual to use double stage or even multiple stage pumps. In such a case there are usually sufficient stages to correspond to one stage for every 50 pounds pressure.

Five accompanying views represent two different types of single-stage centrifugal pumps direct connected to Terry steam tur-

return chambers. In emerging from the nozzle the steam has been expanded down to a pressure approximately the same as the exhaust, and has acquired an enormous velocity corresponding to this drop in pressure. Instead of giving up all this energy to only one bucket on the wheel, the steam

foreign matter of various kinds. The lack of valves and the large open passageways of this type of pump permit it to handle rough and heavy material which could not possibly go through a reciprocating pump without doing considerable damage.

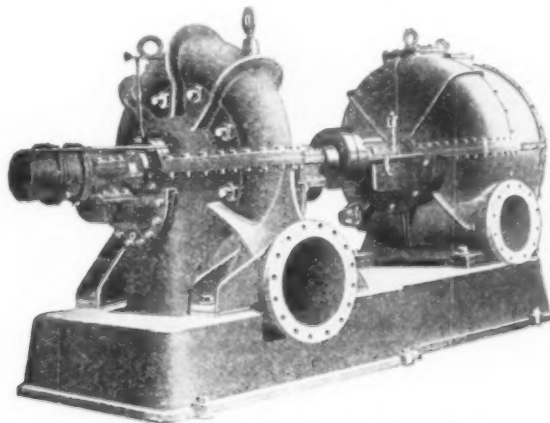


FIG. 5.—TURBINE-DRIVEN CENTRIFUGAL PUMPS.

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and when this is necessary the statements are made as rumored or reported, and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular.

"In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned."

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription for the contract period to the Daily Bulletin is included.

BRIDGES, CULVERTS, VIADUCTS

Ala., Montgomery.—Allen R. Gilchrist, City Engineer, and Montgomery Traction Co. are making final arrangements for construction of bridge at north end of Ripley St.; structure is to be of reinforced concrete, 80 feet long and 40 feet wide. (See "Road and Street work.")

Ga., Atlanta.—Southern Railway (D. W. Lum, chief engineer, Washington, D. C.), Fulton and DeKalb counties have signed contract to construct proposed overhead bridge on McDonough Rd. over Southern Railway tracks; agreement has also been reached between Fulton county and Southern Railway for construction of underpass on Plasters bridge or Piedmont Rd.; S. B. Turman, chairman public works committee, or Fulton County Commissioners.

Ga., Carnesville.—Carnesville Railway Co., W. S. Erwin, president, Clarksville, Ga., will construct one trestle in connection with 2½ miles of railway to be built from Toccoa to Carnesville, Ga.

Md., Easton.—Talbot and Caroline County Commissioners awarded contract to Nelson-Merydith Company, Chambersburg, Pa., at \$29,809.57 to construct pivot drawbridge and 70-foot steel span over Choptank River in connection with road improvements. (See "Road and Street Work.")

Mo., Kansas City.—St. Louis City Electric Railway Co., D. C. Nevin, president, 1014 Commerce Bldg., Kansas City, will construct two steel bridges across Missouri River and several smaller steel and wooden structures across streams in connection with 250 miles

of railway to be built from St. Louis to Kansas City, Mo.

Okla., Alva.—Winnipeg, Salina & Gulf Railway, C. A. Slayton, chief engineer, Salina, Kans., will construct five steel bridges and trestle work along route of proposed railway.

S. C., Columbia.—Richland county will construct reinforced concrete bridge across Mill Creek on Gardner's Ferry Rd.; bids received until March 6; 20-foot roadway; will require 4000 pounds steel and 100 cubic yards concrete; Fingal C. Black, engineer in charge; W. F. Muller, supervisor. (See "Machinery Wanted.")

Tenn., Memphis.—St. Louis & San Francisco Railroad, F. G. Jonah, chief engineer construction, St. Louis, Mo., will construct 1000-foot viaduct across Oley Ave.; structure is to be of reinforced concrete and have passage of 20 feet for vehicles.

Tenn., Nashville.—City plans issuance of \$100,000 of bonds for widening bridge on Charlotte Ave. and for construction of sidewalks; W. W. Southgate, City Engineer.

Tex., San Antonio.—Woods & Paschal, Hicks Bldg., will construct bridge connecting East and West Pecan Sts.

Tex., Smithville.—City will vote April 4 on issuance of \$3000 of bonds for construction of concrete bridge across Gazley Creek on 2d St. Address The Mayor. (City recently noted to vote on bond issue for bridge construction.)

Va., Richmond.—Subcommittee of Council committee on streets selected five plans for \$225,000 reinforced concrete bridge across James River, which it will refer to board of engineers, consisting of Wilbur J. Watson of Cleveland, O.; Col. C. P. E. Burgwyn of Richmond and City Engineer Charles E. Bolling. Five plans under consideration are those of McCay Engineering Co., 9 E. Lexington St., Baltimore, Md.; I. J. Smith & Co. of Richmond (designs by Concrete Steel Engineering Co. of New York); Stamper Bros. & Tagland of Richmond; H. M. Alport & Sons of Richmond, and Carolina Concrete Co. of Greensboro, N. C. (designs prepared by Kutin Consulting Engineering Co. of Cincinnati). (Invitations for plans, specifications, proposals, etc., previously noted.)

Va., Norfolk.—City Council is considering construction of steel bridge across Eastern Branch, connecting Norfolk and Berkley; cost \$40,000; W. T. Brooke, City Engineer.

W. Va., Fairmont.—Baltimore & Ohio Railroad, W. S. Bouton, engineer of bridges, Engineering Department, Baltimore, Md., is proceeding with renewal of bridge across Monongahela River at Gaston Junction, W. Va.; present single-track structure to be converted into double-track, with three 200-foot through-riveted truss spans; slight changes in masonry; bids not yet received for superstructure. (Recently noted.)

W. Va., Harrisville.—J. B. Westfall, Harrisville, advises Manufacturers Record that Harrisville & Cornwallis Railway will build two bridges in connection with completion of six-mile line from Harrisville to Cornwallis.

W. Va., Point Pleasant.—Chesapeake & Ohio Railway, H. Pierce, chief engineer construction, Richmond, Va., will, it is reported, construct bridge across Ohio River at some point between Point Pleasant and Portsmouth.

CANNING AND PACKING PLANTS

Ala., Mobile.—Pace Orchard Co., W. L. Henderson, president, contemplates erection of canning and preserving factory. (See "Land Developments.")

Fla., Goulds.—Grant Bell & Co. of Chicago, Ill., will establish tomato pulp factory; 50x60 feet; concrete foundation; solid cement floor space; construction under supervision of O. W. Stevens.

Fla., Miami.—Cocoanut Grove Citrus Association will establish packing plant.

Tex., Mission.—Mission Canning Co. has purchased machinery for canning vegetables and fruits; building erected; daily capacity, 50,000 cans; Charles Volz, president; W. P. Stites, vice-president; D. A. Kendall, secretary; W. E. Stewart, treasurer.

Tex., San Benito.—San Benito Canning Co., O. S. Dinger, manager, invites plans and bids for two-story brick cold storage plant for wholesale meat and produce; structure 100x200 feet; cost \$9000; proposed canning plant to be completed in 90 days; daily capacity, 20,000 cans of tomatoes.

Tex., Smithville.—Price-Booker Manufacturing Co. of San Antonio, Tex., plans establishment of pickle factory.

Tex., Texas City.—Texas City Fruit & Produce Growers' Association organized; will establish cannery.

Va., Marlon.—Vance-Eller Company, James L. Vance, president, contemplates establishment of plant for canning kraut. (See "Machinery Wanted.")

Va., Fleeton.—C. E. Davis Packing Co. increased capital stock from \$100,000 to \$175,000.

Va., Providence Forge.—Providence Forge Packing Corporation, W. C. Mercer, president, Richmond, Va. (recently reported incorporated under Richmond with \$10,000 capital stock), will erect frame packing and storage house for packing herrings. (See "Machinery Wanted.")

CLAYWORKING PLANTS

Ala., Boyles.—Terra-cotta Pipe.—Lewis B. Minor, Birmingham, Ala., and associates will, it is reported, build terra-cotta sewer pipe works costing about \$200,000; reinforced concrete buildings.

Ga., Macon.—Sewer Pipes, etc.—Bibb Brick Co. will expend \$50,000 for improvements to plant; will manufacture sewer pipes and terra-cotta in addition to bricks; machinery purchased.

S. C., Pendleton.—Bricks.—Pendleton Brick Co. incorporated with \$10,000 capital stock; will continue established plant; daily capacity 40,000 to 50,000 bricks; W. S. Pack, president; W. M. Pack, vice-president; W. N. Trowbridge, secretary-treasurer.

Tenn., Graysville.—Roofing Tile, Flower Pots, etc.—Dixie Clay Products Co. will be incorporated with \$100,000 capital stock by Will H. Fox of Dayton, Tenn., and others; will establish plant to manufacture roofing tile, facing brick, terra-cotta, etc.; will convey clay by gravity system and transport to plant by tramroad; cost of initial equipment \$40,000 to \$45,000.

W. Va., Parkersburg.—Roofing Tile.—United States Tile Co. will make improvements to double capacity of plant; will install several kilns, driers, pressers, etc.

COAL MINES AND COKE OVENS

Ky., Frankfort.—Roy Wilhoit and New York capitalists plan development of coal and timber lands in connection with construction of railway from Webbville to Poor Fork.

Ky., Hopkins County.—D. E. Mitchell, Lebanon, Tenn., and C. H. Judkins, Garfield Bldg., Cleveland, O., may be addressed relative to development of 40,000 acres of coal land in Hopkins county. (Recently noted purchased for \$400,000.)

Ky., Pineville.—Black Mountain Coal Co. incorporated by Samuel Bennett, H. B. Jones and W. M. Burchfield.

Va., Darbyville.—Darby Coal Mining Co. (recently reported incorporated with \$50,000 capital stock) will develop 1500 acres of coal land; daily capacity 600 tons of coal; install machinery, including electric generators and motors for haulage; also pump for washer and machine shops; cost \$25,000; R. E. Hill, engineer in charge, Darbyville; main office, Knoxville, Tenn.; James K. McDowell, president; C. H. Thompson, vice-president and manager; Wade Barrier, secretary-treasurer. (See "Machinery Wanted.")

W. Va., Charleston.—Coal Valley Mining Co. incorporated with \$50,000 capital stock by A. E. Moore, Arloa C. Moore, F. L. Woodworth and Ada P. Woodworth, all of Athens, O., and L. V. Reed, Terra Alta, W. Va.

CONCRETE AND CEMENT PLANTS

Ala., Corey.—American Cement Tile Manufacturing Co., I. L. Myers, president, New York, will build, it is reported, branch cement tile roofing plant costing \$175,000; now has temporary plant at Corey. Joseph Freund of St. Louis, Mo., is vice-president.

Va., Big Stone Gap.—Big Stone Gap Construction Co. will erect plant for manufacturing cement blocks, etc.

COTTON COMPRESSES AND GINS

Ala., Troy.—Atlantic Compress Co., Atlanta, Ga., will erect cotton compress on site of Troy Compress Co.'s plant previously burned.

Ark., Earle.—Boone Gln Co., Dan Boone, president, will erect four-stand cotton gin

with outhouses; cost \$3000; cost of machinery, \$4000. (Recently noted incorporated with \$7000 capital stock.)

Ga., Blythe.—Blythe Union Gln & Mill Co. incorporated with \$2000 capital stock by A. H. Rooks, John T. King, Richard S. Rowe and others.

Tex., Lone Oak.—Harrison Bros. purchased machinery and material for 4-80-gln outfit with 12-inch saw-out press; daily capacity 60 bales of cotton; buildings include main structure, 20x66 feet; seedhouse, 20x50 feet; cotton-house, 28x28 feet, and engine-room, 26x28 feet. (Recently erroneously noted at North Lone Oak, Tenn.)

COTTONSEED-OIL MILLS

Ga., Augusta.—North Augusta Warehouse & Fertilizer Co. is reported considering establishment of cotton-oil mill. (See "Fertilizer Factories.")

Okla., Calvin.—Choctaw Cotton Oil Co., F. J. Phillips, president, Shawnee, Okla., proposes to expend approximately \$90,000 on four-press oil mill recently noted to be erected at Calvin. Address general office.

Tex., Mission.—Mission Cottonseed Oil Co. reorganized with \$60,000 capital stock; will establish oil mill with capacity of 45 tons.

DRAINAGE AND IRRIGATION

Tex., Brownwood.—W. M. Baugh will construct dam across Jim Ned Bayou and install irrigation pumping plant.

ELECTRIC LIGHT AND POWER

Ala., Albertville.—City voted issuance of \$7000 of bonds for construction of electric-light plant. Address The Mayor. (Recently mentioned.)

Ark., Clarksville.—E. J. Connell will, it is reported, rebuild electric-light plant recently reported burned at loss of about \$35,000.

Fla., Live Oak.—Live Oak Electric Co., Harry J. Wood, president, has purchased machinery for and will erect 40x60-foot boiler-house; ordinary construction. (Recently noted organized and to have purchased plant for \$40,000.)

Ga., Marietta.—City will vote May 1 on issuance of \$30,000 of electric-light bonds. Address The Mayor.

Ga., Pelham.—City will vote on issuance of \$25,000 of bonds for improvement of light system, etc. Address The Mayor. (See "Water-works.")

Ky., Lagrange.—City granted electric-light franchise to J. C. Emmick, Lewisport, Ky.; will construct plant.

Ky., Somerset.—United Water, Light & Traction Co. incorporated with \$100,000 capital stock by William Waddle, C. F. Smith, A. A. Tuttle, M. O. Curd and B. L. Waddle, all of Louisville, Ky.

Miss., Laurel.—Laurel Light, Heat & Power Co. incorporated with \$30,000 capital stock by J. T. Pullen of Laurel and R. F. Yonaz, Jackson, Miss.

Miss., McComb.—City has engaged Xavier, A. Kramer, consulting engineer, Magnolia, Miss., to submit plans and specifications for electric-light plant. (Recently mentioned.)

Miss., Tupelo.—City contemplates voting March 7 on issuance of \$50,000 of bonds for improvements to electric-light plant, street paving and erecting city hall; C. E. Goodlet, clerk. (Recently noted.)

Mo., Chillicothe.—City has plans by Fuller-Count Company, Chemical Bldg., St. Louis, Mo., for proposed electric-light plant; \$50,000 of bonds have been issued.

Mo., Kansas City.—Kansas City Electric Light Co. will construct substation at 40th St. and State line; building will be 120x40 feet; reinforced concrete; fireproof; cost \$15,000; for housing machinery for transformation of high-tension electricity to low-tension for street railway and lighting.

Mo., Monett.—City has plans and specifications by Rollins & Westover, engineers, Beals Bldg., Kansas City, Mo., for proposed electric-light plant; contract for construction will soon be awarded.

N. C., Rutherfordton.—City voted issuance of \$25,000 of bonds for construction of electric-light plant and water-works. Address The Mayor.

N. C., Smithfield.—City voted issuance of \$55,000 of bonds for construction of electric-light plant, sewer system and water-works. Address The Mayor. (Recently mentioned.)

Okla., Durant.—H. C. Lutz, superintendent, Durant light plant, advises that building proposals will be received March 7 for erection of electric-light plant. (Recently noted to adopt plans and specifications.)

Okla., Boynton.—City is considering construction of electric-light plant. Address The Mayor.

Okla., Quinton.—City contemplates voting March 7 on electric-light plant and water-works. Address The Mayor.

Okla., Pryor.—Pryor Ice & Light Co., W. L. Jones, president, has about completed erection of \$10,000 electric-light and ice plant (previously reported; machinery purchased. See "Ice and Cold-Storage Plants.")

S. C., Pelzer.—West Pelzer Public Service Co. Incorporated with capital stock of \$10,000 by M. D. Sullivan, W. L. Welborn, John Frank and C. C. Hindman.

S. C., Rock Hill.—City will rebuild and make extension to electric-light and water-works plant; Rudolph Hering, 170 Broadway, New York, is consulting engineer; plans by Thomas W. Cohan, Greenwood, S. C. (Recently noted to have acquired water-works, electric-light plant and franchises for \$100,000.)

Tenn., Jackson.—City will construct electric-light plant; 150-arc-light capacity; generators to be in two units; will scrap old plant; R. L. Beare, chairman of committee. (See "Machinery Wanted.")

Tenn., Lynnville.—Lynnville Mill & Elevator Co. contemplates constructing electric-light system. (See "Lumber Manufacturing.")

Tenn., Manchester.—Legislature authorized issuance of \$25,000 electric-light and water-works bonds. Address The Mayor.

Tex., Canyon.—Canyon Power Co. incorporated with \$25,000 capital stock by C. R. McAfee, C. N. Harrison and D. A. Park.

Tex., Georgetown.—City awarded contract to James Watterson, Austin, Tex., at \$3000 to erect power-house; F. H. Lancashire, engineer in charge, Dallas, Tex. (Recently mentioned.)

Tex., San Antonio.—W. B. Tuttle, vice-president San Antonio Gas & Electric Co., states as follows concerning reconstruction of Villita St. power-house recently noted: Steel construction is only part of work on which bids will be needed; amount required \$43,128 pounds; balance of work will be done by company; no bids. (See "Machinery Wanted.")

Tex., Texas City.—Texas City Electric Light & Water Co., R. C. Trube, president and manager, has purchased machinery for electric-light plant; fireproof building already erected; L. L. Summers & Co., First National Bank Bldg., Chicago, Ill., engineer in charge. (Recently reported incorporated with \$100,000 capital stock.)

Va., Richmond.—Finance Committee recommended appropriation of \$9000 for extension of Broad St. lights; Charles E. Bolling, City Engineer.

FERTILIZER FACTORIES

Fla., Tampa.—Tampa Fertilizer Co. will construct fertilizer factory at Gary.

Ga., Augusta.—North Augusta Warehouse & Fertilizer Co., J. C. Lamar, president, will erect fertilizer factory and warehouse to replace present plant; also reported as contemplating establishment of cotton-oil mill.

Va., Irvington.—Carters Creek Fish Guano Co., W. L. Messick, president, will expend \$50,000 in next few months for building steamers for fishing purposes. (Recently noted to increase capital stock to \$100,000.)

FLOUR, FEED AND MEAL MILLS

Ark., Paragould.—House & Meiser Company, P. E. House, manager, will establish 100-barrel flour mill.

Mo., Kansas City.—Nelson Grain Co. will erect three-story grain mill and hayhouse; cost \$87,000.

Va., Grottoes.—J. W. Lam of Staunton, Va., and H. M. Whitmire purchased Blue Ridge Mills and will install 500-horse-power electric motor.

Va., Galox.—J. O. Spears will erect mill building and install new machinery.

Va., McDowell.—E. A. Hammer will establish mill.

Va., Staunton.—M. Ker will establish 50-barrel flour mill.

FOUNDRY AND MACHINE PLANTS

Ala., Gadsden.—Car Works.—Gadsden Car Works will, it is reported, make extensions and improvements to plant.

Fla., Tampa.—John Long awarded contract

to Aulick & Miller, Tampa, for erection of foundry and machine shop; 70x98 feet; ordinary construction; cost \$3500; plans by F. J. Kennard. (Address care of Mr. Long.)

Mo., St. Louis.—Gas Machines.—Universal Gas Machine Co. incorporated with \$15,000 capital stock by F. L. Pohlman, Geo. Brandt, Edward Huber and others.

Okla., Guthrie.—Culverts.—Oklahoma Bridge & Culvert Co., B. W. Murphy, president, M. K. & T. tracks, will manufacture corrugated Toman metal culverts; machinery ordered; work progressing on proposed buildings, including office, engine-room and main factory. (Recently noted incorporated with \$20,000 capital stock.)

Tenn., Chattanooga.—Foundry.—Jones Machine Co., Elm and Short Sts., will erect foundry addition; construction begun; will install traveling crane and facilities for gray iron casting; capacity to be 6000 pounds per hour.

Tex., Houston.—Grate Bars.—Thomas Grate Bar Co., Birmingham, Ala., will establish plant for manufacturing grate bars; cost \$50,000 to \$75,000.

Tex., San Antonio.—Ice Machinery.—Modern Ice Machine Co., W. G. Roloff, president, 504 Moore Bldg. (recently reported incorporated with \$30,000 capital stock), will install machinery to manufacture refrigerating and ice machinery; building is completed. (See "Machinery Wanted.")

GAS AND OIL DEVELOPMENTS

Mo., Kansas City.—Long Bell Oil Co. incorporated with \$50,000 capital stock by R. A. Long, C. B. Sweet, J. F. Bannister and others.

Okla., Atoka.—Atoka Oil & Gas Co. has purchased machinery and will drill for oil; A. R. Faudree, president; J. S. Adams, vice-president; L. R. Teubner, secretary-treasurer. (Recently reported incorporated with \$20,000 capital stock.)

Okla., Boynton.—City Council is considering laying gas mains. Address The Mayor.

Okla., Tulsa.—United States Oil & Gas Co. incorporated with \$25,000 capital stock by D. S. and I. Rabinovitz, H. Appleman and others.

Tex., Longview.—Longview Gas & Oil Co., W. D. Sessum, president, has purchased machinery for development of gas and oil deposits; C. F. Miles of Longview is engineer in charge; no further bids will be advertised. (Recently noted.)

Virginia.—Virginia Oil & Gas Co. incorporated with \$100,000 capital stock by H. P. Child, V. E. Myers and R. F. Myers, all of Gallipolis, O.

W. Va., Buckhannon.—Jenkins Oil & Gas Co. incorporated with \$25,000 capital stock by R. I. Perrine, O. B. Beers, W. E. White and others.

W. Va., Cairo.—Reaser Oil & Gas Co. incorporated with \$25,000 capital stock by Walter Reaser, G. F. Hess, E. S. Batson and others.

W. Va., Grafton.—Excelsior Oil & Gas Co. organized; Charles R. Durbin, president; Ona C. Jefferys, vice-president; will develop 2500 acres of gas and oil lands in Marion county.

W. Va., Huntington.—Lyndon Oil & Gas Co. incorporated with \$100,000 capital stock by A. B. Brode, C. K. Oxley, C. E. Yoho and others.

W. Va., Huntington.—Lydon Oil & Gas Co. incorporated with \$10,000 capital stock by A. B. Brode, C. K. Oxley, C. E. Yoho and others.

W. Va., Parkersburg.—Silver Run Oil Co. incorporated with \$32,000 capital stock by C. W. McCormick, S. F. Crane and others.

ICE AND COLD-STORAGE PLANTS

Ark., Fort Smith.—Fort Smith Ice & Cold Storage Co., D. J. Young, president, awarded contract to A. Klingensmith, Fort Smith, for rebuilding portion of burned plant; 100x150 feet; fireproof construction; cost \$10,000; plans by T. T. Reddick, Fort Smith; machinery purchased; daily capacity, 125 tons of ice. (Recently noted.)

Fla., Tampa.—Florida Brewing Co. awarded contract for ice machinery; will erect brick addition to storage cellar. (See "Miscellaneous Factories.")

Mo., Poplar Bluff.—Poplar Bluff Ice Co. awarded contract to John Hague, 623 Granite Bldg., St. Louis, for erection of 750-ton storage-house, remodeling ice plant and installation of 125-horse-power high-pressure boiler.

Missouri.—St. Genevieve Brewing Association awarded contract to John Hague, 623 Granite Bldg., St. Louis, Mo., for remodeling ice plant. (See "Miscellaneous Factories.")

Okla., Pryor.—Pryor Ice & Light Co. (re-

cently noted incorporated with \$50,000 capital stock) has about completed erection of \$10,000 ice and electric-light plant; daily capacity of ice plant, 10 tons; machinery purchased; W. L. Jones, president; O. O. Snyder and W. H. Oliver, vice-presidents; J. C. Martin, secretary-treasurer. (Previously reported.)

Tex., Gatesville.—Gatesville Ice Co. incorporated with \$9000 capital stock by Dan E. Graves, Leak Ayres and R. M. Arnold.

Tex., Kaufman.—Kaufman Ice Co. incorporated with \$20,000 capital stock by J. W. Singleton, P. G. Bacon, Geo. Shaw and others.

Tex., McGregor.—Big Four Ice & Refrigerating Co. will establish 20-ton ice plant.

Tex., San Benito.—San Benito Canning Co., O. S. Dinger, manager, invites plans and bids for two-story brick cold-storage plant for wholesale meat and produce; 100x200 feet; cost \$9000. (See "Canning and Packing Plants.")

LAND DEVELOPMENTS

Ala., Birmingham.—Whittemore & Williams Realty Co. incorporated with \$3000 capital stock; H. D. Williams, president; L. D. Williams, vice-president; G. H. Whittemore, secretary-treasurer.

Fla., Miami.—Miami Land & Trust Co. incorporated with \$500,000 capital stock; B. B. Tatum, president; A. R. McLennan, vice-president; T. H. Dunn, secretary-treasurer.

Ala., Mobile.—Pace Orchard Co., W. L. Henderson, president, will plant 7000 trees in pecans, figs and Satsuma oranges; later will increase; no equipment needed at present; contemplates erection of canning and preserving factory. (Recently reported incorporated with \$4000 capital stock.)

Fla., Munyon's Island (not a postoffice).—L. J. Matthias of Philadelphia, Pa., purchased Munyon's Island; will erect number of dwellings and make other improvements; operate under name of Paradise Island Realty Co.

Fla., Orlando.—Fairview Home Co. purchased tract of land; will subdivide, construct drives, erect 20 to 30 tenement-houses, etc.

Fla., Arcadia.—J. C. Dornes and Henry Busch of Dubuque, Ia., purchased 20,000 acres of land in De Soto county for colonization; will subdivide 20,000 acres into 10-acre tracts.

Fla., De Soto County.—Laidlow Land Co., Kansas City, Mo., incorporated with \$20,000 capital stock; W. A. Laidlow, president and treasurer; Dean Laidlow, vice-president; W. S. Laidlow, secretary; succeeds Southeastern Land Co.

Fla., St. Petersburg.—Sunshine City Land Co. incorporated with \$20,000 capital stock; C. H. Adams, president; W. McKee Kelley, vice-president and general manager; H. T. Lincoln, treasurer; all of Ben Avon, Pa.; D. T. McKee, secretary, Avalon, Pa.

Ga., Macon.—Mikado Realty Co. incorporated with \$100,000 capital stock by J. Clay Murphy, John T. Moore and Eden Taylor; will develop residence suburb on Houston Rd.

Ga., Union City.—Greater Georgia Development Co. elected S. G. Slack president, J. H. Harris vice-president, C. H. Gullatt secretary-treasurer; G. A. Beattie, Atlanta, Ga., fiscal agent. As recently stated, company is organized with \$1,000,000 capital stock, purchased 900 lots, plans erection of hotel and various other improvements. (In previous item St. Elmo Massengale, W. F. Dorsey and H. H. Deen were incorrectly noted in connection.)

Ky., De Soto.—De Soto Land Co. incorporated with \$10,000 capital stock by R. L. Paul, Leonard Walton and Geo. H. Walton.

Ky., Louisville.—Century Realty Association incorporated with \$100,000 capital stock by E. D. Foree, A. C. Reverman, G. L. Everbach and others.

Ky., Paintsville.—John C. C. Mayo, John E. Buckingham, John Duncan and others purchased John Frew Stafford Farm at Van Lear Junction; will subdivide into building lots and develop as residence section.

La., Lafayette.—Paper Shell Pecan Nursery, P. K. Hopkins, president, will develop pecan, satsuma and fig nursery; later will conduct orchards. (Recently noted incorporated with \$5000 capital stock.)

La., Lake Charles.—De Quincey Land Co. incorporated with \$5000 capital stock; F. M. Fuller, president; F. A. Rolleson, vice-president; H. W. Cardwell, secretary-treasurer.

La., Lake Charles.—Pomelo Plantation Co., Charles A. Clark, president, will develop 1500 acres of highland and marsh lands to be known as Hollywood Farms; will subdivide into five-acre tracts for cultivation of oranges and grapefruit; alluvial lands to be reclaimed and divided into five and ten-acre

truck farms, company reserving part for cultivation of celery; has platted section into half-acre lots for residence purposes; will construct lock through levee for purpose of transportation and install pumping machinery; contract not let; has placed contract for construction of reclamation levee. (Recently noted incorporated with \$100,000 capital stock.)

La., New Orleans.—Fidelity Land Co. purchased tract of land near naval station and will develop residence park.

Md., Greenridge.—F. Mertens' Sons of Cumberland, Md., will develop land for apple orchards, as stated lately; have 22,000 acres, which is being divided into 10-acre orchards; have expended about \$650,000 for and are continuing improvements; now constructing 11-mile macadam road to Pennsylvania State line, and plans complete road system to cost about \$2,000,000; also developing town of Greenridge.

Miss., Pelahatchie.—Spann Addition Co. incorporated with \$10,000 capital stock by J. A. Spann, Jr., J. E. Ammons and others.

Miss., Yazoo City.—Yazoo City Development Co. organized with J. W. Gregory president, J. C. Hollingsworth vice-president, W. A. Henry treasurer, E. P. Swain secretary; will develop 1000 acres of land; subdivide 300 acres of delta land into farms. (Company recently reported incorporated with \$40,000 capital stock.)

Mo., St. Louis.—Westminster Place Development Co. incorporated with \$2000 capital stock by Robert A. Burns, Wade H. Bush and James H. Keefe.

Mo., St. Louis.—Wayne Realty Co. incorporated with \$50,000 capital stock by T. A. Morrey, S. J. McKinley and J. H. Brinkmeyer.

N. C., Statesville.—W. B. Crawford and E. M. Crawford of Bethany, R. F. D. from Wallburg, N. C., and Mrs. John L. Milholland of Statesville purchased 13½ acres of land on Mocksville Rd., and will establish nursery; probably erect greenhouses later.

S. C., Georgetown.—Winyah Realty Co. incorporated with \$10,000 capital stock; H. L. Smith, president; H. L. Oliver, vice-president; D. T. Smith, secretary-treasurer.

Tenn., Nashville.—Bransford Realty Co. purchased tract of land on Harding Rd. for about \$60,000; will subdivide into lots 100x200 feet and develop for residence section.

Tex., Houston.—Carey Shaw, C. J. McCarty, Louis Tully, Joe M. Sams and others purchased 200 acres of land for about \$350,000; will organize company; pave streets, install lighting and water systems, etc.

Va., Dooms.—E. W. Miller of Waynesboro, Va., purchased 148 acres of land near Dooms; will develop orchards.

Va., Norfolk.—Ocean View Gardens incorporated with \$45,000 capital stock; R. E. Jordan president; D. P. Blount, vice-president; H. J. Walker, secretary-treasurer.

Va., Newport News.—Roda Villa Place incorporated with \$15,000 capital stock; Edwin Phillips, president; B. J. Pressey, secretary-treasurer.

LUMBER MANUFACTURING

Ala., Decatur.—Huntsville Lumber Co. purchased timber land for \$10,000.

Ala., Sunflower.—Labenthal Lumber Co. incorporated with \$6000 capital stock by J. Labenthal, F. N. Labenthal, G. W. Labenthal and others.

Ark., Woodruff County.—Hugh McLean Lumber Co., 949 Elk St., Buffalo, N. Y., purchased timber only on tract of about 2700 acres in Arkansas; will manufacture at company's band mills, Memphis, Tenn. (Recently noted.)

Fla., Daytona.—William Stenson & Son purchased Halifax River Lumber Co.'s plant; operation will begin within few days. (See "Machinery Wanted.")

Fla., Washington.—German-American Lumber Co., Millville, Fla., has purchased 25,800 acres of land with round timber in Washington county from Yawkey Lumber Co., Wau-sau, Mich., and will cut timber in mills now in operation at Millville. (Recently noted.)

Fla., Watertown.—Paul Bros. incorporated with \$500,000 capital stock; president, R. H. Paul; vice-president, John J. Paul; secretary-treasurer, A. G. Paul.

Ky., Frankfort.—Roy Wilhoit and associates plan development of timber lands. (See "Coal Mines and Coke Ovens.")

Ky., Lebanon.—Lebanon Hardwood Flooring Co. incorporated with \$25,000 capital stock by W. G. Matson, J. M. Knott and George R. Burks.

La., Livingston Parish.—Frost-Johnson Lumber Co., Shreveport, La., does not contemplate present erection of sawmill on tim-

ber land recently noted purchased in Livingston parish.

La., New Orleans.—Standard Lumber Co. incorporated with \$3000 capital stock; Albert Baldwin, Jr., president; Frank E. Reis, vice-president; John W. Reed, secretary-treasurer.

Miss., Louisville.—A. C. Shryver purchased hardwood and pine timber land from M. A. Coleman, and will develop; will establish two sawmills and planing mill.

Mo., Kansas City.—Creason-Grayson Lumber Co. incorporated with \$35,000 capital stock by Luther Creason, M. E. Creason and James Whitehurst.

Mo., Springfield.—Williams Lumber & Manufacturing Co. incorporated with \$15,000 capital stock by T. E. Williams, J. F. Legan, H. B. McDaniel and others.

N. C., Wilmington.—C. R. Jordan, Gulf, N. C., secured standing pine timber on 1800 acres of land on Cape Fear River near Wilmington; will install machinery, etc.; daily capacity, 15,000 to 20,000 feet; operation by April 1. (See "Machinery Wanted.")

S. C., Barnwell.—Barnwell Lumber Co. acquired 7000 acres of timber land and will install plant for development.

S. C., Ehrhardt.—Hacker Manufacturing Co., G. B. Buell, president, will expend \$25,000 in constructing new sawmill, railroad, etc.; daily capacity of mill, 30,000 feet of timber; all orders for equipment and machinery have been placed; main office, Charleston, S. C.; recently noted to have increased capital stock to \$125,000 and to have purchased Conrad Ehrhardt Lumber Co.'s plant, comprising about 25,000,000 feet of yellow pine.

Tenn., Johnson City.—George L. Carter and associates will improve oak veneer plant; expend \$4000.

Tenn., Lynnville.—Lynnville Mill & Elevator Co. purchased Evans-Kerr Milling Co.'s mill; is remodeling plant and will install new machinery; contemplates constructing electric-light system.

Tenn., Memphis.—Eagle Lumber Co. (recently reported incorporated with \$20,000 capital stock by S. E. Ragland and others) will deal in lumber (retail).

Tenn., Memphis.—J. V. Stimson Hardwood Lumber Co. incorporated with \$60,000 capital stock by J. V. Stimson, C. A. Weathers, B. F. Katterhenry and others.

Tex., Honey Island.—Williams Lumber Co., T. J. Williams, president, will install 16-inch shotgun-feed steam nigger and steam trip and boiler; increase capacity of plant from 35,000 to 75,000 feet of lumber every 24 hours.

W. Va., West Union.—West Union Lumber Co. incorporated with \$25,000 capital stock by F. B. Lyons, C. H. Gifford, D. C. Dotson, L. M. Scott and others.

METAL-WORKING PLANTS

Md., Baltimore.—Bakers' Supplies.—George C. Schimpf Company, 230 W. Camden St., increased capital stock from \$10,000 to \$25,000; will install new stamping machinery.

Tex., Dallas.—Oil Tanks.—S. F. Bowser & Co., S. A. Polhemus, general manager, Fort Wayne, Ind., will, it is reported, establish branch plant for manufacturing self-measuring oil tanks and oil storage systems. J. G. Rodman will be local manager.

W. Va., Follansbee.—Sheet Metal Specialty Co. awarded contract to A. S. Craig Contracting Co. of Follansbee to erect addition to plant; cost \$10,000.

MINING

Ga., Atlanta.—Kimball Mining Co. incorporated with \$250,000 capital stock by F. H. Peck, M. S. Baughn and J. M. Bishop.

Ga., Dawsonville.—Gold.—Kimball Mining Co. incorporated with \$250,000 capital stock; F. H. Peck, president; M. S. Baughn, vice-president; J. M. Bishop, secretary-treasurer, all of Atlanta, Ga.; will develop gold mine near Dawsonville; controls 1135 acres.

Ga., Villa Rica.—Pyrites.—Georgia Pyrites & Mfg. Co. incorporated with \$250,000 capital stock to develop pyrites ore lands near Villa Rica; president, N. J. Grizzard; treasurer, W. W. Wisdom, both of 529 Candler Bldg., Atlanta, Ga.

Ky., Bowling Green.—Stone.—Tegart Stone Co. incorporated with \$10,000 capital stock by John F. Tegart, James C. Tegart and James H. Wilkinson.

La., Alexandria.—Gravel.—C. L. Dwyer is negotiating for gravel bed; plans to construct spur track from Tloga and install machinery to screen and wash gravel.

La., Tloga.—Gravel.—Tloga Gravel Co. organized with \$300,000 capital stock to develop gravel on 2300 acres land; will erect plant for

screening and washing gravel; construct railway extension to main lines; organized by E. S. Brasher of Tloga, C. L. Dwyer, Geo. K. Force, K. C. Barkley and A. D. Anderson of Houston, Tex.

Mo., Savannah.—Stone.—Savannah Stone Co., O. F. Speirs, president, incorporated with \$20,000 capital stock (not \$10,000, as recently noted); contemplates addition to pulverizing machinery. (See "Machinery Wanted.")

Mo., Granby.—Lead and Zinc.—Granby Mining & Smelting Co., T. P. Donohoe, manager, will expend \$20,000 to \$25,000 to erect smelting mill to replace burned structure; daily capacity, 100 tons of zinc ore. (Recently noted.)

Mo., Kansas City.—Lead and Zinc.—Paine Mining & Leasing Co. incorporated with \$5000 capital stock by H. D. Paine, H. C. Paine and John Georgan.

Mo., Webb City.—Lead and Zinc.—East Side Mining Co. will develop six acres of leased land; daily capacity, five tons lead and zinc; Frank C. Thompson, secretary. (Recently noted incorporated.)

Va., Sylvanus.—Iron.—N. J. Worrell has leased one mile of "Big Ore Bank," consisting of 1000 acres of iron-ore deposits; installed siding and begun operations; no further equipment needed at present. (Recently noted.)

MISCELLANEOUS CONSTRUCTION

Ark., Van Buren.—Levee.—Commissioners Crawford County Levee District, E. L. Matlock, secretary, awarded contract to Frank Gould, Pine Bluff, Ark., for completing Crawford county levee from Van Buren to Frog Bayou; subcontracts awarded; \$175,000 of bonds have been issued. (Recently mentioned.)

Fla., Sarasota.—Owen Burns is receiving bids for construction of cement and wood pier and bulkhead recently noted; cost \$10,000. (See "Machinery Wanted.")

Ky., Catlettsburg.—Dam.—Government awarded contract to Sheridan-Kirk Contracting Co., Cincinnati, O., for construction of dam 29; cost about \$1,000,000.

La., New Orleans.—Levee.—State Board of Engineers awarded contract to Clark & Helgason Bros. of New Orleans at \$5.40 per cubic yard for construction of Mascot levee to extend along right bank of Mississippi River for two miles in Madison parish, Fifth Louisiana Levee District; will require about 402,000 cubic yards of filling; average net fill about 18 feet. (Recently mentioned.)

La., New Orleans.—Wharf and Shed.—Board of Commissioners of Port of New Orleans, Suite 20, New Orleans Court Bldg., awarded contract to Fort Pitt Bridge Works, Pittsburgh, Pa., at \$36,122 for fabrication and erection of structural steel and cast iron for William A. Kernaghan shed, and to Doullut & Williams of New Orleans at about \$30,000 for construction of wharf in front of United States Immigration Station. (Call for bids recently noted.)

La., New Orleans.—Jetty.—United States Engineer Office, Lansing H. Beach, Lieutenant, 325 Custom-house, will open proposals on March 17 for extending jetties at Southwest Pass. (See "Machinery Wanted.")

Va., Richmond.—Finance committee recommended appropriation of \$20,000 for improvements to Shockoe Creek; Charles E. Bolling, City Engineer.

MISCELLANEOUS ENTERPRISES

Ala., Birmingham.—Construction.—Realty Construction Co., F. Larkin, vice-president and general manager, 2034 Third Ave. (recently reported incorporated with \$2000 capital stock), will conduct general contracting business. (See "Machinery Wanted.")

Ala., Birmingham.—Electrical Contracting, etc.—Walker-Middlebrooks Company, J. M. Middlebrooks, president and general manager, 313 N. 19th St., will conduct electrical contracting business and deal in electric fixtures and supplies. (Recently noted incorporated with \$15,000 capital stock.)

Ala., Mobile.—Hardware and Builders' Supplies.—Kelly-Bardy Hardware Co. incorporated with \$25,000 capital stock; Wm. T. Kelly, president; P. F. Brady, secretary-treasurer; leased building at 7 N. Water St.

Ark., Jonesboro.—Grain Elevator.—Jonesboro Roller Mill Co., W. T. Nash, president, placed contract for grain elevator recently noted; four steel tanks, 10,000 bushels each.

Ark., Nashville.—Newspaper Plant.—Nashville News, W. W. Turner, proprietor, awarded contract to Williams & Wilcox, Little Rock, for erection of building; concrete-block construction; concrete floors; metal ceilings; 28x80 feet; fireproof.

D. C., Washington.—Bottles.—B. Wollberg Bottle Co. incorporated with \$7500 capital stock; B. Wollberg, president, 1024 6th St. N. W.; A. Wollberg, vice-president; Josephine Wollberg, secretary-treasurer.

Fla., Tallahassee.—Fish and Oysters.—St. George Fish & Oyster Co. incorporated with \$100,000 capital stock; Geo. W. Saxon, president, Tallahassee; H. C. Bliss, vice-president, St. Louis, Mo.; A. J. Smith, secretary, Atlanta, Ga.; C. R. Porter, treasurer, Rome, Ga.

Ga., Atlanta.—Garage.—Mrs. Bertha Swift awarded contract for erection of garage for Mitchell Lewis Motor Co. of Racine, Wis.; two stories; cost \$15,000 to \$20,000; plans by Francis H. Cowell, Atlanta.

Ga., Hooker.—Lime and Stone.—Monarch Lime & Stone Co. (recently noted incorporated at Chattanooga, Tenn., with \$6000 capital stock) will operate quarry and lime-kilns; William E. Thompson, president; L. H. Thomas, vice-president; Frank Taylor, secretary-treasurer; Howard Turner, manager. (See "Machinery Wanted.")

Ga., Savannah.—Auto Livery.—Sawyer Auto Livery, C. H. Sawyer, president and manager, 201 Perry St., will erect one-story addition; 1400 feet floor space; will install engine lathe; recently noted incorporated with \$30,000 capital stock. (See "Machinery Wanted.")

Ky., Bowling Green.—Garage.—Charles H. Smith and Luther Conkin will erect garage; brick and concrete.

Ky., Lexington.—Publishing.—Chronicle Publishing Co. incorporated with \$11,000 capital stock by E. D. Veach, T. M. Owsley and J. Krum.

Ky., Louisville.—Plumbing.—J. F. Leanhart & Sons incorporated with \$50,000 capital stock by J. F. Leanhart, F. G. Leanhart and others.

Ky., Louisville.—Automobiles.—Louisville Auto Co. incorporated with \$50,000 capital stock by J. G. Watson, J. A. Serpell and O. H. Walther.

Ky., Louisville.—Automobile Repairs.—John Rommel will establish automobile repair shop.

Ky., Paris.—Tobacco Redrying.—Farmers & Growers' Loose Leaf Tobacco Warehouse Co. incorporated with \$100,000 capital stock; plans erection of redrying plant; daily capacity 100,000 pounds of tobacco. (See "Warehouses.")

La., Lake Charles.—Distributing Plant.—Waters-Pierce Oil Co. of St. Louis, Mo., awarded contract to P. Oliver & Sons, Lake Charles, for erection of distributing plant, consisting of offices, warehouses and stables; pressed brick and concrete; near fireproof; will equip with electric power for unloading oil; cost \$25,000; F. W. Fraley, Louisiana manager.

La., Vinton.—Grain and Lumber.—Thomas Grain & Lumber Co. incorporated with \$6000 capital stock; W. P. Dunn, president; Mrs. E. L. Dunn, vice-president; K. K. Thomas, secretary-treasurer.

Miss., Meridian.—Building Supplies.—Acme Building Supply Co. incorporated with \$15,000 capital stock by C. L. Gray, R. C. Malone and John L. McEmore.

Miss., Tupelo.—Paving.—Tupelo Paving & Material Co. incorporated with \$10,000 capital stock by W. B. Troy, C. P. Lord and others.

Mo., Kansas City.—Construction.—Clark-Williams Construction Co., 305 R. A. Long Bldg., has organized with A. M. Clark president; R. A. Clark, vice-president; H. E. Williams, secretary-treasurer; will conduct general contracting business. (Recently noted incorporated with \$100,000 capital stock.)

Mo., Kansas City.—Crushed Rock and Concrete.—Crushed Rock & Concrete Co. incorporated with \$50,000 capital stock by W. H. Caffrey, C. A. Roe and R. L. Caffrey.

Mo., St. Joseph.—Plumbing and Heating.—Jackson Plumbing & Heating Co. incorporated with \$3500 capital stock by M. W. Jackson, R. M. Jackson, F. L. Sollars and others.

Mo., St. Louis.—Automobiles.—Igou Motor Car Co. incorporated with \$9000 capital stock by Samuel C. Igou, Robert C. Hoffer, Frank J. Wehinger and Harry W. Teckmeyer.

Mo., St. Louis.—Pressing, Dyeing, etc.—St. Louis Pressing, Dyeing & Cleaning Co. incorporated with \$5000 capital stock by J. H. Parent, E. A. Cumiskey and others.

Mo., St. Louis.—Machinery.—Manufacturers' Equipment Co. incorporated with \$2100 capital stock by C. R. Scudder, C. Y. Carr and others.

Mo., St. Louis.—Contracting.—Bothe-Welsch Contracting Co. incorporated with \$4000 capital stock by Jos. J. Bothe, Charles A. Welsch and William Protzmann.

S. C., Columbia.—Undertaking Establishment.—J. W. McCormick awarded contract

to Wyse Granite Co., Columbia, for erection of undertaking establishment; 51x80 feet; three stories; pressed brick and terra-cotta; plumbing and heating contract not awarded; plans by Shand & Lafaye, Columbia.

N. C., Hendersonville.—Builders' Supplies.—Rigby-Morrow Company will conduct general supply business. (Recently noted incorporated under "Lumber-manufacturing Plants" with \$50,000 capital stock by J. C. Morrow and others.)

N. C., Spartanburg.—Laundry.—Morgan Steam Laundry, P. E. Morgan, proprietor, has leased building and will establish laundry; cost of machinery (purchased), \$5000; will be in operation by March 20.

S. C., Saluda.—Automobiles, etc.—Saluda Automobile & Machinery Co. incorporated with \$5000 capital stock by W. P. Dendy, M. D. Sullivan and B. W. Poore.

S. C., Spartanburg.—Laundry.—Morgan Bros. Printing Co. awarded contract to Holaday & Crouse, Greensboro, N. C., for erection of additional story to printery; 25x36 feet; semi-fireproof construction. (Recently noted as having plans prepared by W. C. Northup of Winston-Salem, and to install additional equipment.)

S. C., St. George.—Industrial.—The Industrial Co. incorporated with \$5000 capital stock by R. J. Mebane, W. P. Shuler and W. S. Utsey.

Tenn., Binghamton.—Building Supplies.—Powell-Graham Co. incorporated with \$4000 capital stock by J. L. Powell, Jos. Graham, Jr., L. W. Graham and others.

Tex., Caldwell.—Publishing.—Barleson County Printing Co. organized with \$5000 capital stock by F. H. Hitchcock, president; B. O. McLean, vice-president; W. W. Rankin, secretary-general manager; Thos. Kraitchar, Jr., treasurer; will consolidate Caldwell New-Chronicle and Barleson County Ledger.

Tex., Bardwell.—Hardware.—Bardwell Hardware Co. incorporated with \$15,000 capital stock by S. T. Collier, R. O. Roach, W. B. Whittington and others.

Tex., Clinton.—Steam Laundry.—W. K. Golden is arranging to establish steam laundry.

Tex., Port Lavaca.—Publishing.—Wave Publishing Co. incorporated with \$3000 capital stock by L. Seabrook, D. O. Bell, W. C. Noble and others.

Tex., Sherman.—Hardware.—Ballard-Forman Hardware Co. incorporated with \$15,000 capital stock by A. J. Ballard, R. B. Anderson, G. S. Hackett and A. E. Forman.

W. Va., Charleston.—Publishing.—Social Labor Publishing Co. incorporated with \$5000 capital stock by D. R. Draper, J. F. Lewis, Paul N. Wiggins and others.

Va., Fredericksburg.—Amusements.—Casino Island Co. incorporated with \$20,000 capital stock; Harry Harzburg, president; L. J. Roach, vice-president; R. J. McDonnell, secretary.

Va., Richmond.—Steamboat Line.—Furman Line incorporated with \$5000 capital stock; Horace Furman, president, Prince George C. H., Va.; E. J. Furman, vice-president, Elco, Va.; Winfield Lanier, secretary-treasurer, Petersburg, Va.; will operate steamboat line between Richmond and Petersburg.

Va., Richmond.—Park.—Finance committee recommends \$7500 appropriation for improvements to Bryan Park; Charles E. Bolling, City Engineer.

Va., Staunton.—Printery.—Valley Printing Corporation, Thomas K. Russell, president, will continue established plant; no further machinery needed. (Recently noted incorporated with \$10,000 capital stock.)

Va., Roanoke.—Coffee and Spices.—Roanoke Coffee & Spice Co. increased capital stock from \$35,000 to \$100,000; wholesalers in coffee, peanuts and spices; no machinery needed.

W. Va., Wheeling.—Frank W. Nesbitt awarded contract to H. W. Fair, Wheeling, for erection of garage.

MISCELLANEOUS FACTORIES

Ala., Birmingham.—Candy.—Birmingham Candy Co. increased capital stock from \$10,000 to \$25,000.

Ala., Robertsdale.—Tobacco.—Cubanola Tobacco Co. incorporated with \$5000 capital stock by I. F. Upson, George Brooks, R. W. Crowe and others.

Ark., Gravette.—Lime.—Ozark White Lime Co. will construct new kilns; construction begun.

Fla., Pensacola.—Turpentine.—Deerland Turpentine Co. of Crestview, Fla., will operate for turpentine in Choctawhatchee forest.

Fla., St. Petersburg.—Gas Plant.—F. T. Ely of People's Gas Light & Coke Co., Chicago, Ill., applied for franchise to establish gas plant.

Fla., Tampa—Brewery.—Florida Brewing Co. contemplates installing new machinery for bottling plant; will erect brick addition to storage cellar to contain 20 or more casks of 100 barrels capacity each; cost \$8000; day labor; company will supervise construction. (Recently noted to enlarge plant and make other improvements.)

Fla., Tampa—Paper.—Peninsular Paper Co. incorporated with \$15,000 capital stock; J. D. Clarke, president; W. Monroe McIntosh, vice-president; R. D. Whiteside, secretary-treasurer.

Ga., Atlanta—Automobile Trucks, etc.—De Loach Manufacturing Co. of Bridgeport, Ala., increased capital stock to \$250,000 and will establish plant to manufacture automobile trucks, etc.

Ga., Cordele—Bottling.—Bartee & Hubbard will establish bottling plant; construction begun.

Ga., Macon—Overalls.—Lee M. Hupp will erect four-story building and will equip for overall factory; 28,000 or 38,000 square feet ground space; brick or concrete; ribbed-glass windows; cost about \$30,000.

Ga., Rome—Blank Books.—American Sales Co. incorporated with \$100,000 capital stock by H. J. Ayres of Rome, W. W. Foreacres of Atlanta, Ga., and others.

Ga., Rome—Drugs, Extracts, Perfumery, etc.—Cherokee Chemical Co. of Georgia incorporated with \$250,000 capital stock by P. D. Christian of Greensboro, N. C., and P. C. Jack of Rome.

Ky., Louisville—Harness.—Barringer-McKnight Company incorporated with \$25,000 capital stock by S. B. Barringer, I. McKnight and J. B. Gambrell.

Ky., Louisville—Distillery.—Stitzel Distilling Co. increased capital stock from \$39,000 to \$100,000.

Ky., Paducah—Dental Supplies.—Stamper Dental Manufacturing Co. incorporated with \$10,000 capital stock by J. T. Gilbert, E. G. Stamper, D. H. Littleton and others.

Ky., Richmond—Tobacco.—C. F. Chenault and Andrew J. House are interested in establishment of plant to manufacture smoking and plug tobacco.

La., Baton Rouge—Oil Refinery.—Standard Oil Co. of Louisiana, Amos K. Gordon, treasurer, telegraphs Manufacturers Record that his company will increase refinery capacity by 5000 barrels oil daily; install crude stills, steam mills, steam tankers, paraffine plant and other equipment necessary; New York office at 26 Broadway. (Reported last week as purchasing 150 acres land and to double capacity.)

La., New Orleans—Shoes.—Henry Lindenberg, 926 Royal St., awarded contract to F. L. Bixler, New Orleans, for erection of shoe factory; 59x100 feet; mill construction; electric lighting; freight elevator; cost \$40,000; plans by F. W. Crosby, 501 Denegre Bldg., New Orleans. (Recently noted.)

Md., Baltimore—Cornstarch.—T. G. Pritchard Company, 108 Light St., will erect four-story brick warehouse and factory building at 108 Grant St.

Md., Baltimore—Smoking Tobacco.—J. Ward Plamer Tobacco Co. incorporated with \$5000 capital stock by Wm. H. Kraus, Hanover and Pratt Sts. (president); Julius H. Wyman and John L. V. Murphy, both of 404 Maryland Trust Bldg.; purchased New York plant of company by same name; will remove to Hanover and Pratt Sts., improve and install additional equipment.

Md., Baltimore—Paint.—John T. Lewis & Bros. Company, 1015-19 E. Fayette St., awarded contract to John K. Melver, 210 Wilson Bldg., Baltimore, for erection of factory building to replace present plant; brick and concrete; 62x116 feet; cost \$10,000 for construction alone; cost of machinery, including rendering furnace for lead; etc., \$25,000; private plans; main office, Philadelphia, Pa.

Miss., Crystal Springs—Peanut Products.—Crystal Springs Oil & Fertilizer Co. plans installation of machinery for crushing peanuts.

Miss., Biloxi—Macaroni.—Barq & Moran incorporated with \$5000 capital stock by Edward Barq, William Moran and E. Barq.

Mo., St. Genevieve—Brewery.—St. Genevieve Brewing Association awarded contract to John Hague, 623 Granite Bldg., St. Louis, Mo., for remodeling brewery and ice plant; work will begin at once.

Mo., St. Joseph—Candy.—Mueller-Kelly Candy Co. increased capital stock from \$115,000 to \$200,000.

Mo., St. Louis—Brewing.—Mound City Brewing Co. incorporated with \$50,000 capital stock by John M. Hannibal, Jos. W. Ebeling, Ben Loddeke and others.

Mo., St. Louis—Henry E. Wind will erect factory buildings; two stories; cost \$15,000.

Mo., St. Louis—Cut Glass.—Joseph D. Bergen & Co., Meriden, Conn., are reported interested in establishment of cut-glass factory; cost \$50,000.

Mo., St. Louis—Shirts.—Greenfield Bros. Custom Shirt Co. incorporated with \$2500 capital stock by Gustave Greenfield, Milton Greenfield, Isaac Greenfield and others.

Mo., St. Louis—Shoes.—Brown Shoe Co. will erect factory building; 50x150 feet; seven stories; fireproof construction; cost \$100,000; plans by A. B. Groves, St. Louis; construction under supervision of J. H. Robles, vice-president of company.

Mo., St. Louis—Vending Machines.—Miller Cigar Vending Machine Manufacturing Co. incorporated with \$50,000 capital stock by O. S. Miller and others.

Mo., St. Louis—Gas Machines, etc.—Universal Gas Machine & Manufacturing Co. incorporated with \$15,000 capital stock by Frederick L. Pohlman, Edward Huber and others.

Mo., Sullivan—Doubletrees.—United States Doubletree Co., J. A. Spilman, president, will manufacture steel doubletrees; has building and machinery; main office, Rolla, Mo. (Recently reported incorporated under Rolla, Mo., with \$20,000 capital stock.)

N. C., Charlotte—Safety Razors and Stropping Instruments.—Company is being organized with \$150,000 capital stock by F. O. Cole, W. M. Tye, both of Charlotte; W. B. Smoot of Salisbury, N. C.; A. L. Miller of Lincolnton, N. C., and others to establish plant to manufacture safety razors and stropping instruments.

N. C., Durham—Amusement Devices.—Lake-wood Coaster Co. incorporated with \$25,000 capital stock by R. L. Lindsey, J. M. Umstead and H. A. Foushee.

N. C., Elkin—Drugs.—Surry Drug Co. incorporated with \$25,000 capital stock by T. V. Foote, W. L. Parks, J. F. Williams and others.

N. C., Lime Rock (not a postoffice)—Lime. Yarkin Lime Co., Winston-Salem, N. C., is proceeding with erection of buildings, including general store, offices, factory and tenements; ordinary construction; A. J. Wellington, president, is also engineer in charge, 235 Franklin St., Boston, Mass.; Charles K. Messick, vice-president; Arline F. Messick, secretary-treasurer; other details not available. (Recently noted incorporated with \$125,000 capital stock.)

N. C., Mebane—Bedding.—Mebane Bedding Co. plans to erect addition to plant.

N. C., Wilmington—Turpentine.—National Wood Distilling Co. incorporated with \$110,000 capital stock by H. M. Chase, Thomas W. Pritchard and Cameron F. Melroe; will promote process (invented and patented by Thomas N. Pritchard) for distilling turpentine and wood oil; officers not elected.

Okla., Tulsa—Sucker Rods, etc.—Oklahoma Rod Co., W. C. Norris, president, is planning to double capacity of plant and manufacture polish rods, working barrels, pumping jacks, etc., in connection with present output.

S. C., Gaffney—Creamery.—C. A. S. Campbell and T. W. Williamson of Gaffney, S. C., are interested in organization of company to establish creamery; cost \$6000.

S. C., Charleston—Toilet Preparations.—Wilson's Freckle Cream Co., 234 Meeting St., has organized with A. J. Geer, president and treasurer; J. F. Riddle, vice-president and secretary; rented building and will manufacture toilet preparations. (Recently reported incorporated with \$50,000 capital stock.)

Tenn., Chattanooga—Elevators.—Sybilla Elevator & Manufacturing Co. incorporated with \$50,000 capital stock by Frank Sybilla, John C. Quental, George Sybilla and others.

Tenn., Glenason—Tannery.—J. H. and W. F. Parks will establish tannery.

Tenn., Henry—Washing Machines.—W. O. Bunn & Co. will establish plant to manufacture washing machines.

Okla., Oklahoma City.—Wood-Knight Motor Flow Co. is reported incorporated and to erect factory in Delmar Heights.

Tenn., Knoxville—Novelties.—Greenwood Advertising Co. will open bids March 28 for erection of three-story building; 60x149 feet; mill construction; steam heat; cost \$25,000; plans by R. F. Graf & Sons, Knoxville.

Tenn., Memphis—Misses Ora Belle Lee and Rowena Lee will erect loft building; six stories; 40x150 feet; fireproof concrete construction; glazed tile trimmings; entire front and rear of plate glass; passenger and freight elevators; elevator corridor on each floor; contract price \$55,000.

Tenn., Nashville—Trunks, etc.—White Trunk & Bag Co. increased capital stock from \$50,000 to \$100,000.

Tenn., Nashville—Bakery.—H. G. Hill Gro-

cery & Baking Co., H. G. Hill, president, awarded contract to R. A. Griffin & Sons, Nashville, for erection of bakery; 70x180 feet; mill construction; cost \$30,000; plans by Marr & Holman, Nashville. (Recently noted.)

Tenn., Nashville—Hardware Specialties.—Severance Mfg. Co., 302 Church St., incorporated with \$100,000 capital stock; V. C. Severance, president; Prof. J. I. D. Hinds, vice-president; W. M. Joseph, secretary; A. F. Whitman, treasurer; is a holding company; will organize nine manufacturing companies in United States and Canada to make specialties on royalty basis; factories to be equipped with tools and machinery for machine and sheet-metal work. (See "Machinery Wanted.")

Tenn., Nashville—Shirts, etc.—Huddleston-Cooper Company will continue established plant; no further machinery needed; R. H. Huddleston, president; Emmett Cooper, secretary; Mark Y. Sloan, manager. (Recently noted incorporated with \$50,000 capital stock.)

Tenn., Nashville—Beverages.—Nashville Syrup Co. has organized with John D. Fletcher president and manager, J. B. Fletcher secretary-treasurer; has plant in three-story brick building at 209 Church St. (Recently noted incorporated with \$100,000 capital stock.)

Tex., El Paso—Mattresses and Furniture.—R. L. Daniel Mattress & Furniture Factory Co. incorporated with \$5000 capital stock by R. L. Daniel, Geo. E. Wallace and others.

Tex., Brenham—Candy.—Knolle Candy Co. will acquire and enlarge candy plant of Arthur Knolle. (Recently reported incorporated with \$5000 capital stock.)

Tex., Dallas—Soda Fountains, Pumps, etc. Bishop & Babcock of Cleveland, O., will, it is rumored, establish plant to manufacture soda fountains, etc.; leased building at 258 Commerce St.

Tex., San Angelo—Implements and Buggies. Henderson Buggy & Implement Co. incorporated with \$25,000 capital stock by R. H. Henderson, Z. Z. Williams and George Richardson.

Tex., Waco—Cotto-Waxo Products.—Cotto-Waxo Products Co. of St. Louis, Mo., will establish branch plant; cost \$15,000 to \$20,000.

Va., Norfolk—Automobile Assembling.—Cameron Car Co. of Beverly, Mass., contemplates establishing automobile assembling plant; Messrs. E. S. Cameron and C. E. Clements of the company are registered at Lynnhaven Hotel.

Va., Norfolk—Building Supplies.—J. C. Grinnan Company incorporated with \$40,000 capital stock; J. C. Grinnan, president; Richard B. Tucker, secretary.

Va., Richmond—Radium Spray.—Radium Spray Co. of Virginia, James W. Lord, president, 109 N. 7th St., has building and will manufacture radium spray; daily capacity, 100 gallons. (Recently noted incorporated with \$50,000 capital stock.)

Va., Richmond—Tobacco Factory.—Larus & Bro. Company awarded contract for rebuilding partially-burned plant; walls intact; contemplates full operation within three weeks. (Reported burned.)

W. Va., Creston—Lamp Black.—Godfrey I. Cabot of Boston, Mass., will install new roller process and about double present 2000-pound daily capacity.

W. Va., Parkersburg.—Natural Gasoline Extraction Co. incorporated with \$50,000 capital stock by Edward B. Rick of Parkersburg, Henry D. Wilson, Cornelius D. Scully, Paul Killian and R. Herzog, all of Pittsburg, Pa.

W. Va., Waverly—Refinery.—Consumers Refining Co. incorporated with \$25,000 capital stock by Frank M. Hunter, George J. Shaffer, William E. Schoyer and others, all of Pittsburg, Pa.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, SHEDS, ETC.

Miss., Clarksdale.—Yazoo & Mississippi Railroad, S. S. Morris, general superintendent, Memphis, Tenn., is considering, it is reported, erection of roundhouse; understood that \$100,000 has been appropriated.

Okla., Alva.—Winthrop, Salina & Gulf Railway, C. A. Slynott, chief engineer, Salina, Kans., will construct machine shops at some point on route of proposed railway.

Tenn., Memphis.—St. Louis & San Francisco R. R., F. G. Jonah, chief engineer construction, St. Louis, Mo., will construct yards and mechanical facilities, expending about \$250,000; later, it is planned to erect freight depot costing \$250,000.

ROAD AND STREET WORK

Ala., Troy.—City will pave all sidewalks on N. Three Notch St. to city limits. Address The Mayor.

Ala., Collinsville.—V. M. Brindley will construct about 900 yards cement sidewalks; bids received until March 4. (See "Machinery Wanted.")

Ala., Wetumpka.—Elmore county voted issuance of \$170,000 of bonds for road improvements. Address County Commissioners.

Ala., Montgomery.—Allen R. Gilechrist, City Engineer, and Montgomery Traction Co. are completing arrangements for construction of reinforced concrete bridge at north end of Ripley St. and construction of road from bridge through Cypress Pond vicinity and connecting with Lower Wetumpka Rd.; road is to be 3700 feet long and 50 feet wide; bridge is to be 80 feet long and 40 feet wide; total cost, \$12,000 to \$15,000; city and county will share cost of road, and city and street-car company cost of bridge.

Ark., Augusta.—J. B. Thompson, Crittenden County Judge, Gilmore, Ark., is promoting construction of road from Augusta to Memphis, Tenn., distance of about 70 miles.

Fla., Tampa.—City will construct sheet cement sidewalks; bids received until March 7; D. B. McKay, chairman Board of Public Works. (See "Machinery Wanted.")

Ga., Macon.—City awarded contract to Southern Paving Co., Chattanooga, Tenn., for 100,000 square yards additional brick paving; streets include 1st, 2d, 3d, Plum, 4th, Cherry, etc.; Eden Taylor, Jr., chairman committee on streets and sidewalks.

Ky., Louisville.—City received bids March 1 on about 32,000 square yards asphalt pavements to cost about \$70,000; will also receive bids March 3 for about 15,000 square yards vitrified-block pavement, estimated cost, \$28,000; D. R. Lyman, chief engineer. (See "Machinery Wanted.")

La., Baton Rouge.—State Board of Engineers will, it is reported, construct 50-foot pike on Bayou Sara Rd. from city limits to Monticello Bridge, distance of four miles.

La., New Orleans.—City is considering paving of Tchoupitoulas St. from Canal to Poydras with small granite blocks; Martin Behrman, Mayor.

La., Shreveport.—City will vote April 4 on issuance of \$250,000 of bonds for street paving. Address The Mayor.

Md., Eastern.—Talbot and Caroline County Commissioners awarded contract to Nelson-Merydith Company, Chambersburg, Pa., at \$29,809.57 to grade and macadamize .83 mile of Dover Bridge Rd.; work includes pivot drawbridge and 70-foot steel span over Choptank River, together with necessary piers, abutments, fender work, etc. (Recently mentioned.)

Md., Greenridge.—F. Mertens' Sons of Cumberland, Md., are constructing 11-mile macadam road to Pennsylvania State line and plan complete road system to cost \$2,000,000. (See "Land Developments.")

Miss., Tupelo.—City contemplates voting March 7 on issuance of \$50,000 of bonds for street improvements, etc., recently noted; C. E. Goodlett, clerk. (See "Electric-light and Power Plants.")

N. C., Bat Cave.—Chimney Rock & Hickory Nut Gap Turnpike Co. incorporated with \$50,000 capital stock by G. W. Connor, C. Oates, W. S. Freeman and others; will construct road.

N. C., Elizabeth City.—Board of Control rejected award of contract for paving Main and other streets; Z. Fearing, Mayor, will readvertise for bids. (Contract recently reported awarded to Peters Bros. Paving Co., Chicago, Ill., rejected by Board of Control.)

N. C., Kings Mountain.—Kings Mountain precinct will petition Legislature for authority to issue \$25,000 of bonds for road construction; J. M. Patterson, G. H. Logan and Floyd J. Mauney have been appointed highway commission.

N. C., Wadesboro.—Anson county will vote on issuance of \$300,000 of bonds for road construction. Address County Commissioners.

Okla., Quinton.—City contemplates construction of cement sidewalks. Address The Mayor.

Okla., Oklahoma City.—City will pave with sheet asphalt, grade and otherwise improve Lindsay Ave., Wheeler St., intersection of Bath Ave. and 12th St., 7th St., 31st St., etc.; bids received until March 6; Bob Farman, City Clerk. (Date of opening bids postponed from February 27, as lately stated. See "Machinery Wanted.")

S. C., Greenville.—Greenville county will pave Buncombe Rd. to Five-Mile Post; J. P. Goodwin, Supervisor of Greenville county.

Tenn., Chattanooga.—City will pave portions of Willow, Beech, Vine and Oak Sts., and Orchard Knob Ave., designated as Group 1; also portions of W. 4th, 10th, E. Terrace and 13th Sts., designated as Group 2; bids received until March 7; H. F. Van Dusen,

chairman, Board of Public Works. (See "Machinery Wanted.")

Tenn., Nashville.—City plans issuance of \$100,000 of bonds for construction of sidewalks and for widening bridge on Charlotte Ave.; W. W. Southgate, City Engineer.

Tex., Alvin.—Alvin District of Brazoria county will vote March 28 on issuance of \$150,000 of bonds for constructing shell and gravel roads leading to and from Alvin; district is to be designated as Good Roads District No. 1 of Brazoria county. Address County Commissioners, Angleton, Tex.

Tex., Brady.—McCulloch county will vote March 25 on issuance of \$75,000 of bonds for road construction. Address County Commissioners.

Tex., Columbus.—Colorado county will vote March 7 on issuance of \$250,000 road bonds. Address County Commissioners.

Tex., Crockett.—Houston county will vote March 25 on issuance of \$150,000 of bonds for construction of roads in Road District No. 3, comprising area of about 14 square miles. Address County Commissioners.

Tex., Dallas.—Dallas county will grade and gravel two sections of Dallas and Hutchins Rd.; bids received until March 4; George L. Fearn, County Auditor. (See "Machinery Wanted.")

Tex., Dallas.—City will pave Cochran St. from McKinney Ave. to Lamar St.; J. B. Winslett, City Secretary, will invite bids.

Tex., Dallas.—City will pave Pennsylvania and Ross Aves., Bryan, Pearl, Worth, Walton and Austin Sts.; bids received until March 6; J. B. Winslett, City Secretary. (See "Machinery Wanted.")

Tex., Dallas.—City will receive bids until March 1 for paving Jefferson St. from 10th to Tyler Sts.; bids received until March 1; J. B. Winslett, City Secretary. Recently mentioned. (See "Machinery Wanted.")

Va., Fort Monroe.—R. B. McBride, Captain and Quartermaster, will open proposals on March 21 for constructing concrete walks, macadam roads, etc. (See "Machinery Wanted.")

Tex., Hempstead.—Precinct No. 6 of Waller county will vote April 1 on issuance of \$10,000 of bonds for road construction. Address County Commissioners.

Tex., Paris.—Precinct No. 1 of Lamar county contemplates voting on issuance of \$200,000 of bonds for road construction; T. J. Record, president Lamar County Good Roads Association.

Tex., San Antonio.—Bexar county will lay 1½ miles of Goliad road between Elmendorf and Saspamco; bids received until March 7; Thomas E. Ramsey, County Auditor. (See "Machinery Wanted.")

Tex., Taylor.—Williamson County Commissioners awarded contract to Texas Building Co., Fort Worth, Tex., to macadamize Taylor and Rockdale public roads in Taylor Precinct No. 4 at cost of \$200 per mile; will require about 22,500 cubic yards of gravel to the mile.

Va., Norfolk.—Norfolk & Portsmouth Traction Co. awarded contract to Louis S. Lawson of Norfolk at \$1 per square yard for laying about 8500 yards of vitrified brick paving.

Va., Norfolk.—Common Council, Southgate Leigh, president, referred to finance committee resolution appropriating \$8645 to macadamize streets leading to bridge across Tanner's Creek to connect with Cottage Bridge Rd. to Ocean View.

Va., Richmond.—Finance committee recommended appropriation of \$180,000 for general street improvements, \$50,000 for Washington ward streets and \$15,000 for New Lester St.; Charles E. Bolling, City Engineer.

Va., Salem.—Roanoke county and city of Roanoke are considering construction of macadam road between Salem and Roanoke; F. W. Brown of Roanoke is chairman of committee.

Va., Staunton.—Augusta County Supervisors are considering issuance of \$1,000,000 of bonds for road construction.

Va., Tazewell.—Tazewell county will vote April 4 on issuance of \$650,000 of bonds for road construction; S. M. Graham, Clerk. (Recently noted.)

W. Va., Morgantown.—City will vote April 6 on issuance of \$25,000 of bonds for street paving. Address The Mayor.

W. Va., Parkersburg.—Parkersburg district of Wood county voted \$150,000 bond issue for paving about 10 miles of road, four principal entrances to city. Address County Commissioners. (Recently mentioned.)

SEWER CONSTRUCTION

Ga., Americus.—City contemplates issuing \$65,000 of bonds for sewer and water-works improvements. Address The Mayor.

Ga., Carterville.—City contemplates voting on issuance of bonds for construction of sewer system. Address The Mayor.

Ga., Pelham.—City will vote on issuance of \$25,000 of bonds for improvements of sewer system, etc. Address The Mayor. (See "Water-works.")

Ga., Marietta.—City will vote May 1 on issuance of \$15,000 of sewer and water bonds. Address The Mayor.

Md., Baltimore.—City will receive bids until March 15 for construction of storm-water drains, contract No. 12; Calvin W. Hendrick, chief engineer Sewerage Commission, City Hall. (See "Machinery Wanted.")

Md., Easton.—City voted issuance of \$40,000 of bonds for construction of sewer system with disposal plant; Clyde Potts, 30 Church St., New York, is engineer.

Miss., McComb.—City has engaged Xavier A. Kramer, consulting engineer, Magnolia, Miss., to submit plans and specifications for sewerage system; proposed to issue bonds. (Recently mentioned.)

N. C., Smithfield.—City voted issuance of \$55,000 of bonds for construction of sewer system, electric-light plant and water-works. Address The Mayor. (Recently mentioned.)

S. C., Chaleston.—City awarded contract to Guild & Co., Chattanooga, Tenn., at \$51,639.70 for building six sewer wells and emptying pipe lines for sewerage system; each well will be equipped with two electrical pumps and automatic equipment, so that pumps will operate of their own accord upon sewage reaching certain elevation in wells. (Call for bids recently mentioned.)

S. C., Rock Hill.—Thomas W. Cothan, Greenwood, S. C. (recently noted to have been retained to make plans and surveys for sewerage and water-works plant), advises that plans will be ready for bids about March 15.

Tex., Cameron.—City will construct sewer system; will receive bids until March 15; \$15,000 bond issue authorized; D. D. Wilson, City Secretary. (See "Machinery Wanted.")

Tex., Rockdale.—City is considering bond issue for construction of sewer system. Address The Mayor.

W. Va., Morgantown.—City will vote April 6 on issuance of \$25,000 of bonds for construction of sewers. Address The Mayor.

W. Va., Moundsville.—City will construct 26 miles of sewers, varying in size from 5 to 36 inches in diameter, together with 420 manholes, 6 lampholes, 8 flush tanks, 115 inlets and catch basins, and 22 tons of cast-iron pipe; bids received until March 21; \$170,000 bond issue voted; Charles E. Collins, consulting engineer, Drexel Bldg., Philadelphia, Pa.; J. M. Williamson, Mayor. (Recently mentioned. See "Machinery Wanted.")

TELEPHONE SYSTEMS

Ark., Blytheville.—Lone Oak Telephone Co. incorporated to establish rural telephone system in Chickashaw district of Mississippi county.

Ky., Mackville.—Graves Telephone Co. incorporated by O. P. Burns, Leslie Coule, David Yankee and others.

Md., Chewsville.—Blue Ridge Telephone Co. organized with Samuel Seneckenberger, superintendent, and William Remsburg, secretary-treasurer.

Md., Middletown.—Middletown & Broad Run Telephone Co. organized by R. W. Stake, manager of Frederick (Md.) branch of Chesapeake & Potomac Telephone Co.; will establish telephone system to connect with Chesapeake & Potomac lines; about six miles; no bids.

Md., Middletown.—Middletown & Broad Run Telephone Co. organized by R. W. Stake, manager of Frederick (Md.) branch of Chesapeake & Potomac Telephone Co.; will establish telephone system to connect with Chesapeake & Potomac lines.

N. C., Asheville.—Fairview Telephone Co. will install telephone exchange with capacity for 50 phones.

N. C., Asheville.—Asheville Telephone & Telegraph Co., branch of Southern Bell Telephone & Telegraph Co., Atlanta, Ga., will make improvements to system; extend cable lines and install switchboard with capacity of 500 new lines, giving total capacity of 4000 lines; replace all open lines to West Asheville with cables, also place all open lines in city, where there are 15 or more wires, with cable; construct second line to Asheville from Allman to connect with Franklin Telephone Co.'s line; cost \$100,000.

Tenn., Liberty.—Liberty Home Telephone Co. incorporated with \$2000 capital stock by H. M. Evans, N. H. Craddock, T. H. Chapman and W. Percy Whaley.

Va., Castlewood.—Nicholsville & Russell

Telephone Co. incorporated with H. Darter, president; O. I. Salyer, vice-president; F. M. Gibson, treasurer; J. Johnson, secretary; S. N. Gibson, general manager; will construct telephone system in Russell and Scott counties.

Va., Reliance.—Reliance Telephone Association incorporated with B. H. Gruver, Jr., president; J. C. S. Byers, secretary; W. R. Kline, treasurer.

TEXTILE MILLS

Ga., Conyers.—Knit Goods.—W. G. Flake contemplates building knitting mill; machinery to be electrically driven; has not purchased equipment. (See "Machinery Wanted.")

S. C., Greenville.—Cotton Cloth.—Duncan Cotton Mills incorporated with \$1,000,000 capital stock by J. Adger Smyth, Jr., Ellison A. Smyth, H. J. Haynsworth and C. O. Allen; will build 50,000-spindle and 1500-loom plant; architect-engineer in charge, J. E. Shirine of Greenville. (Recently reported as to be organized, etc.)

S. C., Westminster.—Cotton Goods.—Oconee Cotton Mills Co. will increase capital stock from \$300,000 to \$550,000; has 13,000 ring spindles, 180 broad looms, 182 narrow looms, etc.

Tex., San Antonio.—Hosiery.—Charles Schreiner of Kerrville, Tex., is reported as planning to organize company with capital stock of \$60,000 to \$75,000 to build hosiery knitting mill.

WATER-WORKS

Fla., Titusville.—City will expend \$25,000 to \$30,000 to construct water-works; 60,000 gallons capacity; to include power-house, tank, 85-foot tower and probably 100,000-gallon concrete reservoir to cost \$1500; will install machinery; J. B. McCrary Company, engineer, Atlanta, Ga.; date of opening bids not set. (Recently noted to have voted \$30,000 bond issue.)

Ga., Americus.—City contemplates issuing \$65,000 of bonds for water-works and sewer improvements. Address The Mayor.

Ga., Pelham.—City will vote on issuance of \$25,000 of bonds for improvements to water, light and sewerage systems, and erection of fire-department building, jail and stables. Address The Mayor.

Ga., Marietta.—City will vote May 1 on issuance of \$15,000 of water and sewer bonds. Address The Mayor.

Ky., Somerset.—United Water, Light & Traction Co. incorporated with \$100,000 capital stock by William Waddle of Louisville, Ky., and others. (See "Electric-light and Power.")

Ga., Sylva.—City purchased Sylva Water Supply Co.'s plant and property and will proceed to construct water-works, for which bond issue has been voted; J. B. McCrary & Co., Atlanta, Ga., are engineers in charge; A. B. Lovett, Mayor. (Bond issue of \$40,000 for water-works, electric-light plant and sewer system was voted about one year ago.)

Mo., St. Joseph.—City contemplates laying water mains to northeast suburbs. Address The Mayor.

N. C., Durham.—Durham Water Co. will extend and improve water-works at cost of about \$75,000.

N. C., Rutherfordton.—City voted issuance of \$55,000 of bonds for construction of water-works and electric-light plant. Address The Mayor.

N. C., Smithfield.—City voted issuance of \$55,000 of bonds for construction of water-works, electric-light plant and sewer system. Address The Mayor. (Recently mentioned.)

Okla., Boynton.—City is considering construction of water-works. Address The Mayor.

Okla., Lamont.—City voted \$20,000 bond issue for water-works. Address The Mayor. (Recently noted.)

Okla., Quinton.—City contemplates voting March 7 on water-works and electric-light plant. Address The Mayor.

S. C., Rock Hill.—City will rebuild and make extension to water-works and electric-light plant; Rudolph Hering, 170 Broadway, New York, is consulting engineer; plans by Thomas W. Cothan, Greenwood, S. C. (Recently noted to have acquired water-works, electric-light plant and franchises for \$100,000.)

Tenn., Chattanooga.—City will increase amount of bond issue for water-works from \$200,000 to \$1,250,000; Robert Hooke, City Engineer.

Tenn., Lonsdale, R. Station, Knoxville.—Noble Smithson and L. R. May petitioned

City Council for franchise to construct water-works; M. M. Copenhagen, Mayor.

Tenn., Manchester.—Legislature has authorized issuance of \$25,000 water and electric-light bonds. Address The Mayor.

Tex., Archer City.—City will probably vote on issuance of bonds for construction of water-works. Address The Mayor.

Tex., Christine.—Christine Immigration and Improvement Association awarded contract to Bartlett & Weunch of Christine to drill artesian well; depth of 1500 feet if necessary to secure flowing water.

Tex., Corpus Christi.—J. E. Franklin, president of St. Louis Trust Co., St. Louis, Mo., and associates, it is reported, are planning construction of dam and causeway; contemplate furnishing water for domestic use and for irrigating.

Tex., Dallas.—City will construct standpipe about 3½ miles northeast of city on line of 26-inch pipe leading to White Rock pumping station; bids received until March 3; J. B. Winslett, City Secretary. (See "Machinery Wanted.")

Tex., Elentra.—City contemplates installation of water system. S. Walker may be addressed. (See "Machinery Wanted.")

Tex., Fort Sam Houston.—Constructing Quartermaster, P. W. Guiney, will open proposals on March 21 for furnishing pumping engine of 1,000,000 gallons capacity per 24 hours. (See "Machinery Wanted.")

Tex., Greenville.—City contemplates drilling wells to increase water supply. Address The Mayor.

Tex., Jacksboro.—City will receive bids until March 15 for furnishing materials and construction of water-works recently noted; N. Werenskiold, engineer, Dallas, Tex.; \$28,000 bond issue voted. (See "Machinery Wanted.")

Tex., San Augustine.—City will open bids March 21 for drilling of deep well and for material for construction of water-works system; O'Neil Engineering Co., 1533 Praetorian Bldg., Dallas, Tex., constructing and supervising engineers. (See "Machinery Wanted.")

Tex., Seguin.—Seguin Water Works Co. will extend water system; will lay 1000 feet of eight-inch, 6000 feet of six-inch and 2000 feet of four-inch mains; 20 new fire plugs; Dan Eckel will be in charge.

Tex., Temple.—Municipal Water Commissioners awarded contract for building filtration plant at city water-works station to W. C. Rettiger of Belton and Pittsburg Filter Manufacturing Co., Pittsburg, Pa.; former has contract for concrete and excavation work and latter to supply equipment; contract price \$27,194; filter will have capacity of 2,000,000 gallons every 24 hours.

Tex., Victoria.—City will extend water-works distributing system. Address The Mayor.

Tex., Winters.—City voted \$2000 bond issue for construction of water-works; O'Neil Engineering Co., Dallas, Tex., prepared plans and specifications.

W. Va., Wheeling.—City Council is considering issuance of \$300,000 of bonds for erection of filtration plant; also proposed to add \$100,000 appropriated for improvement of city gas works to filtration fund; C. B. Cooke, City Engineer.

WOODWORKING PLANTS

Ark., Little Rock.—Picture Frames.—Comer Polyns Company incorporated with \$25,000 capital stock by O. J. Comer, A. E. Dolyns and J. A. Comer; address, 121 Main St.

Ark., Little Rock.—Furniture.—Kund & Eilen Mfg. Co., Pittsburg, Pa., is considering, it is reported, establishment of furniture factory.

Ark., Newport —Staves.—Central States Cooperage Co., Newcastle, Ind., will, it is reported, establish mill with daily capacity of 40,000 staves.

Ga., Ellijay.—Boxes.—Shippin Bros. Lumber Co. will establish plant for manufacturing packing boxes.

Ga., Milledgeville.—Wagons.—Williams Waggon Works purchased blacksmith shop of E. Becker and will establish factory.

Ga., Vidalia.—Coffins, etc.—Vidalia Coffin & Casket Co., J. W. A. Crawford, Wrightsville, Ga., president, will rebuild portion of plant recently reported burned; also erect 50x100-foot wareroom; galvanized corrugated siding; tin roof; install machinery. (See "Machinery Wanted.")

Ga., Vidalia.—Coffins.—Vidalia Casket & Coffin Co. will rebuild coffin and casket factory recently reported burned; D. H. McColsky, manager.

Miss., Greenville.—Hoops.—Creston Hoop

Co. organized with \$30,000 capital stock by J. Q. Slayden and John M. Elcher of Greenville and J. M. Peel of Marysville, O.

Mo., Eldon—Handles.—Osage Handle Co. will rebuild burned handle factory.

Mo., Kansas City—Boxes.—Forester-Nace Box Co., 24th and Penn Sts., is having plans prepared by Smith, Rie & Lovett of Kansas City for factory building on 8th St.; two stories; reinforced concrete and brick; ordinary construction; contract awarded to Harry Stevens (address care of company); will install electrically-driven machinery to manufacture wooden boxes; capacity 60,000 daily. (See "Machinery Wanted.")

Mo., Kansas City—Butter Tubs.—N. A. Kennedy Butter Tub Co. incorporated with \$20,000 capital stock by N. A. Kennedy, H. C. Offutt, J. C. Forrest and others.

Mo., St. Louis—Buckets.—Star Bucket & Pail Co. will erect 3-story factory building to cost \$25,000.

N. C. Thomasville—Chairs.—Cramer Furniture Co. awarded contract to T. G. Thompson & Bro., Charlotte, N. C., to rebuild portion of burned plant; building will be of standard construction; brick; one-half of structure to be two stories and other half three stories; daily capacity of plant, 2000 chairs; cost \$30,000; all contracts let and materials purchased; addition to plant No. 2 is in course of construction. (Further facts recently stated.)

Tex., Dallas—Boxes.—Butler Bros. will erect box factory; building to be frame, 60x120 feet; cost \$8000.

Va., East Radford—Cabinets.—Dickey Cabinet Co. contemplates establishing plant for manufacturing fireproof account filing cabinets.

BURNED

Ala., Geneva.—Geneva county courthouse; loss \$25,000. Address County Commissioners.

Ark., Quitman.—Martin Bros.' building; Daves & Castello's building; loss \$10,000.

Ark., Spadra.—Spadra Creek Coal Co.'s engine and boiler-house.

Fla., Gainesville.—Warehouse used jointly by Dutton & Co. and W. W. Colson.

Fla., Micanopy.—L. Montgomery's residence; loss \$10,000.

Fla., White Springs.—Mrs. Oates' millinery store; J. W. Harris' stable; High House; Paxton House; New Florida House; Mr. Morgan's residence; Oaks Hotel; Dr. Cone's residence; Normal College; White Springs House; Adams Bros.' warehouse; Johnson-Patterson Co.'s warehouses; loss \$150,000 to \$200,000.

Ga., Columbus.—E. G. Abbott & Co.'s steam laundry at 911 First Ave.

Ga., Dalton.—North Georgia Warehouse Co.'s stable and two auxiliary warehouses; estimated loss \$4000; D. B. Barrett, proprietor.

Ga., Fairburn.—Southern Bag & Backband Co.'s main building.

Ga., Macon.—Schodfeld Iron Works' engine and boiler room; loss \$4000 to \$5000.

Ga., McDonough.—Walker Bros.' store, loss \$15,000; A. C. Oglesby's store, loss \$5500; Mrs. Emma Walker's building, loss \$8000.

Ky., Nicholasville.—G. D. Gregg's tobacco barn.

Ky., Wilmore.—William Grimes' stable and number of other buildings; loss between \$60,000 and \$75,000.

La., Donaldsonville.—Nichols Hotel, owned by Fred Rogge, loss \$25,000; E. Langbecker's residence and barber shop, loss \$15,000; Estate of Jean Favier's four buildings, loss \$10,000; J. A. Dalfores' store, loss \$5000; Maurin Blue Store's warehouse, loss \$5000; Netter & Co.'s dry goods store and dwelling, loss \$100,000; Ascension Bank Bldg., loss \$15,000; F. L. Trepagnier's store and residence, loss \$15,000; Mrs. V. Maurin's residence, loss \$7000; Sidney Vega's residence and office, loss \$6000; Mrs. Felix Le Blanc's four cottages, loss \$7000; Convent of Sisters of Charity, loss \$5000; barn and residence on Leumann's Peyton plantation, loss \$4000; Mrs. J. Libermuth's building, loss \$20,000.

La., Gretna.—Southern Cotton Oil Co.'s warehouse; loss about \$100,000.

La., Olla.—T. S. Randall's store; A. J. Blake's store; Miss S. Butler's store; S. C. Hollomon's building; Knights of Pythias Hall.

Mo., Hancock.—J. Andrew Coblill's residence, owned by Tono Iowa Orchard Co.

Mo., Pikesville.—Littleton Ridgely's residence; Walter Brooks' residence; loss \$6500.

Miss., Nola.—T. A. Graves' sawmill.

Mo., Fayette.—Public school buildings; loss \$40,000. Address The Mayor.

N. C., Draper.—Public school building. Address The Mayor.

N. C., Fayetteville.—A. H. Slocumb's turpentine distillery; loss \$3000.

N. C., Jonesboro.—Jonesboro Brick Co.'s plant; loss \$2000.

N. C., Winston-Salem.—Farmers' Warehouse property, owned by R. W. and P. A. Gorrell and Mrs. H. L. Riggins; loss \$29,000; Smithman & Stone's grocery store; loss \$10,000; Hub Candy Kitchen, owned by J. H. Shepherd; loss \$11,000; J. H. Fletcher Dry Goods Co.'s store; loss \$6000.

Okl., Idabel.—J. E. Martin's store; J. P. Tribble's store; plant of McCurtain County Beacon, owned by C. J. Stewart; loss \$10,000.

S. C., Denmark.—J. T. Griffin's two dwellings, loss \$5000; J. S. Matthews' residence, loss \$2500.

S. C., Johnston.—T. J. Langston's marble yard and shop; loss \$3000.

Tenn., Byington.—C. R. Lowe's residence; loss \$5000.

Tenn., Elizabethton.—News Block, owned by Lee F. Miller and W. P. Dungan.

Tex., Cleburne.—L. E. Wilson cotton gin; loss \$20,000.

Tex., Conroe.—G. F. Crooke's five buildings; S. K. Hailey's two buildings; building owned by J. W. Lewis and J. K. Ayres; P. West & Son's two buildings; S. S. Griffith's building; A. L. Koonce's building; Mrs. J. E. Stowe's building; building owned by A. A. and D. A. Modeley; Mrs. Hester Clarke's two buildings; J. L. Hicks' building; J. F. Collier's building; F. M. Cabiness' building; A. H. Beasley's building; J. McDade's two buildings; Banks, Griffith & Son's building; Mrs. Anale Wahrenberger's store building and dwelling; Mrs. R. V. Curry's building;

J. C. Sellers' building; Richard Knight's building; total loss \$150,000.

Tex., Hale Center.—Stevens Dry Goods Co.'s store; loss \$12,000.

Tex., Prairie Hill (not a postoffice).—Public school building; T. P. Everett, county school superintendent, Weatherford, Tex.

Tex., Voith.—Leith Lumber Co.'s planing mill and box factory; loss \$35,000 to \$40,000.

Tex., Timpson.—Keeling-Coleman Bldg., building owned by J. H. McGaughy; Mrs. Ida Keeling's building, loss \$5000; building owned by E. T. Coleman, Plainview, Tex., loss \$5000.

Tex., Mount Pleasant.—H. A. Jansen's residence, owned by H. Lidenstern; loss \$2000.

Va., Bristol.—African Methodist Episcopal Zion Church building; loss \$7000 to \$8000; Rev. L. A. Patrick, pastor.

Va., Clifton Forge.—Chesapeake & Ohio Railway's freight car airbrake sheds; loss \$4000; H. Peirce, chief engineer construction, Richmond, Va.

Va., Norfolk.—East Barrel Factory; estimated loss \$75,000.

Va., Portsmouth.—L. Kirstein & Co.'s store on Edingham St., between County and King Sts.; loss on building owned by S. Goodman, \$2000.

Va., Richmond.—Tobacco factories of F. D. Williams Company and Larus Bros.; Williams factory building owned by Granville G. Valentine; Larus Bros.' plant partially destroyed.

Va., Witt.—H. C. Collic's residence; loss \$4000.

WRECKED BY EXPLOSION

Va., Danville.—Municipal gas plant damaged; loss \$12,000; J. O. Magruder, City Engineer.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ala., Gadsden.—S. P. Hagin is considering erection of apartment house.

Ala., Gadsden.—T. M. Cassels will erect 20-room apartment house.

Ark., Little Rock.—L. Coleman will erect apartment-houses at 803-07 W. Capitol Ave.; two stories; brick veneered; cost \$30,000.

Ga., Savannah.—M. Wilensky and J. Lichtenstein will erect \$15,000 store and apartment building. (See "Stores.")

Md., Baltimore.—Mrs. Charles E. Kemp, Walbrook Ave. and 8th St., has plans by Henry J. Tinley, 314 N. Charles St., Baltimore, for apartment-house on 8th St.; three stories; brick construction; stone trimmings; slag roof; estimated cost \$12,000; contractors estimating are J. Henry Smith, 1426 Light St.; Thos. B. Stanfield, 109 Clay St.; C. C. Watts, 113 W. Hamilton St.; John A. Sheridan, 806 N. Carrollton Ave.; Peters & Harding, 15 E. Fayette St., and John K. McIver, 210 Wilson Bldg., all of Baltimore.

Mo., Kansas City.—C. O. Jones will erect apartment-house; three stories; six apartments; brick; cost \$18,000.

Mo., St. Louis.—Frank and George Arnold will erect two single flats containing four and five rooms; cost \$7000.

Mo., St. Louis.—B. C. Edmunds is having plans prepared for apartment-house for negroes in Washington Heights; 67x140 feet; two stories; 12 apartments, each with three rooms and bath.

Mo., St. Louis.—J. Charles Mueller purchased 165-foot site in Lindell Pl. and will erect number of apartments; total investment \$40,000.

Mo., St. Louis.—F. X. Dooley will erect store and apartments.

Mo., St. Louis.—Jay C. Higley will erect two double flats; four rooms and bath each; hot-water heat; cost \$12,000.

Mo., St. Louis.—Mrs. Fred Waring will erect single apartment house.

Mo., St. Louis.—Theodore L. Degenhardt Building & Contract Co. will erect three apartment-houses on Oregon Ave.

N. C., Wilmington.—R. W. Hicks will erect apartment-house; five stories.

Okl., Oklahoma City.—R. H. Gardner will erect two-story brick apartment-house; cost \$4000.

Okl., Oklahoma City.—J. W. Pryor will erect three apartment-houses; two stories; cost \$4000 each.

Okl., Oklahoma City.—W. L. Bradford will

erect residence apartment; cost, including site, \$20,000.

Tenn., Chattanooga.—G. T. and T. E. Hall have plans by J. G. Barnwell and Clarence T. Jones, Chattanooga, for apartment house at McCallie Ave. and Houston St.; three stories and basement; brick; stone trimmings; about 55x100 feet; 56 rooms; electric lights; steam heat.

Tenn., Memphis.—W. R. Malcolm of Chicago, Ill., and others are having plans prepared for apartment-house on Madison Ave.; five stories; elevator service; cost at least \$200,000.

Tex., El Paso.—J. M. McGovern will erect addition to apartment-house; cost \$5140.

Va., Danville.—Fred Clarke has plans by Charles G. Pettit, Jr., Danville, for apartment-house; 55x104 feet; six apartments; Italian style; stucco front; iron balcony and stairs; part red tile and part Barrett specification roofing; copper gutters and conductors; six baths; hot-water heat; cost \$12,000.

ASSOCIATION AND FRATERNAL

Ark., Fort Smith.—Fraternal Order of Eagles is having plans prepared for lodge building.

Ark., Helena.—Lafayette Lodge, No. 185, Ancient Free and Accepted Masons, plans to organize Masonic Temple Co. to erect three- or four-story Masonic temple.

Ark., Little Rock.—Mosaic Templar of America will erect temple; five stories; 199x50 feet; pressed brick; stone trimmings; marble interior trimmings; cost \$50,000; auditorium to seat 2000 to 3000.

Ga., Macon.—W. G. Lee is considering. It is reported, erection of building for Order of Owls.

La., Shreveport.—Ancient Free and Accepted Masons have plans by Edw. Neild, Shreveport, for temple; cost \$50,000.

Mo., Independence.—Fraternal Order of Eagles will erect brick and stone lodge building; 50x35 feet; two stories and basement; cost \$25,000.

Okl., Halleyville.—Chicago, Rock Island & Pacific Railway, J. B. Berry, chief engineer, Chicago, Ill., contemplates erection of \$22,000 Young Men's Christian Association building; 60x30 feet; four stories; stone and wood; to contain in part emergency hospital, bowling alley, demonstration-room, bathroom, etc.; plans not completed; building not yet authorized.

Tenn., Chattanooga.—Knights of Columbus plan to erect \$20,000 to \$25,000 clubhouse.

Tenn., Knoxville.—Independent Order of Eagles is having plans prepared by Albert Gredig, Knoxville, for lodge building; three stories; cost \$45,000.

Tex., Elgin.—Ancient Free and Accepted Masons plan erection of additional story; J. C. Miller, T. B. Taylor and J. W. Jackson, committee.

Tex., Cuero.—Ancient Free and Accepted Masons are having plans prepared for lodge building; two stories; brick; about 20x100 feet.

Tex., Hubbard.—Ancient Free and Accepted Masons will open bids about March 10 for erection of lodge building; 37½x50 feet; ordinary brick construction; stoves; electric lighting; cement sidewalks; cost \$6500. Address S. Johnston. (Recently noted.)

Tex., Houston.—Knights of Columbus will erect six-story building.

Tex., Temple.—Temple Lodge, No. 138, Benevolent and Protective Order of Elks, will let contract between March 1 and April 15 for erection of lodge and mercantile building recently noted; three stories; 65x30 feet; ground floor for mercantile purposes; second and third floors for lodgerooms; semi-fireproof construction; steam heat; gas and electric lighting; reinforced concrete sidewalks; cost \$35,000; plans by Sanguinet & Staats, Fort Worth, Tex.; P. L. Downs, chairman of building committee. (See "Machinery Wanted.")

Tex., Waxahatchie.—Knights of Pythias will erect lodge building.

Va., Danville.—Knights of Pythias have plans by Charles G. Pettit, Danville, for remodeling building; three stories; third floor to be raised, entire front to be changed, new banquet-room with balcony and 45x50-foot lodgeroom; birch panel wainscoting, or ornamental plaster work and anterooms; new heating plant.

W. Va., New Martinsville.—Masonic Temple Association is reported as planning erection of temple.

BANK AND OFFICE

Ark., Hoxie.—Bank of Hoxie, J. E. Pringle, president, will erect two-story bank building.

D. C., Washington.—Perpetual Building Association, 506 11th St. N. W., purchased three-story building at 11th and E Sts. N. W. for \$42,000 and will remodel.

Fla., Tampa.—I. S. Glidden and L. L. Buchanan (owners) will erect two additional stories, install elevator and remodel interior of building occupied by American National Bank; cost about \$30,000; plans by F. J. Kennard of Tampa. (This improvement decided upon about a year ago, but action was delayed.)

Ga., Griffin.—N. B. Drewry and Burr Heirs will erect office building.

Ga., Griffin.—H. B. Drewry and associates will erect 2-story office and business building.

Ga., Ocala.—Citizens' Bank of Ocala will open bids April 1 for erection of proposed \$20,000 bank and office building; two stories; 55x35 feet; steam heat; electric lighting; plans by W. R. Camp, Jacksonville, Fla.; to be out for bids March 10.

Ky., Harlan.—First National Bank will erect three-story brick bank building; 28x35 feet; ordinary construction; fireproof vault; hot-water heat; cost \$10,000; architects and contractors are asked to submit plans and bids.

La., Donaldsonville.—Bank of Ascension, Jacob Libermuth, president, will rebuild bank building reported burned.

Md., Oakland.—Garrett National Bank will let contract in March for erection of additions to bank building; two stories; marble facade and bank fixtures; tile and cork floors; cost \$15,000; plans by Holmboe & Lafferty, Clarksburg, W. Va.

N. C., Greensboro.—C. M. Vanstuary will remodel building at 229 S. Elm St. as office building.

N. C., Henderson.—First National Bank will erect bank building; three stories; stone front; cost \$20,000; plans will be determined this summer.

N. C., Hickory.—E. Reid Russell, Asheville, N. C., will erect office building; electric lighting; steam heat; will not begin construction for one year.

Okl., Alva.—Winnipeg, Salina & Gulf Railway, C. A. Slayton, chief engineer, Salina, Kans., will erect office building at some point on route of proposed railway.

Okl., Delaware.—P. S. Powell of First National Bank, Nowata, Okla., purchased site on which to erect bank building.

Okl., Tulsa.—E. L. Fox will open bids about May 1 for erection of five-story 50x120-foot office and store building recently noted; cost \$65,000. (See "Stores.")

Ga., Newnan.—R. D. Cole Manufacturing Co. will erect office building; two stories; brick; 30x50 feet; mill construction; steam heat; electric lighting; construction by owner.

Va., Stuart.—Patrick County Bank has plans by Pettit & Cave, Danville, Va., for two-story bank building; 24x40 feet; pressed-brick front, with wood columns; composition roof; cost \$4000.

CHURCHES

Ala., Birmingham.—Richmond Place Baptist Church will erect edifice; bids invited; Dr. J. E. Garrison, chairman building commission.

D. C., Washington.—Metropolitan Baptist Church, Rev. John C. Ball, pastor, 231 7th St. N. E., has plans by Appleton P. Clark, Jr., Union Trust Bldg., Washington, for edifice to be erected at 6th and A Sts. N. E.; stone and brick; slate roof; brick towers; stone coping; Gothic style of architecture; fireproof floors; concrete foundations; cost of building, \$50,000; furnishings, \$10,000.

Ga., Savannah.—South Side Baptist Church, Rev. John S. Wilder, pastor, purchased site on which to erect church building and parsonage; former will be brick or artificial stone and have seating capacity of 2500; parsonage of same material; cost about \$50,000; also considering erection of parish hall.

Ga., Savannah.—Southside Baptist Church, Rev. John S. Wilder, pastor, will erect edifice.

Ga., Senoia.—Lutheran congregation adopted plans for edifice; stone or brick; 45x75 feet; cost about \$5000. Address The Pastor, Lutheran Church.

Ky., Nicholasville.—Baptist congregation will enlarge and improve edifice; steam heating; electric lighting; cost \$6000; plans are being prepared; construction to begin within 30 days.

Md., Baltimore.—Charles E. Hensel, pastor Church of the Redeemer, 1301 S. Charles St., will be in charge of congregation to be organized at Cedarcroft; parish building will be erected at first for parish purposes and chapel; later church building will be erected.

Md., Baltimore.—Wilson Memorial Baptist Church, Rev. Russell Lee Owens, pastor, will expend \$30,000 to erect edifice; when completed will be 132x70 feet; present part of building to be erected will be 49x70 feet; mill construction; hot-water heat; gas and electric lighting; cement sidewalks; present cost \$8000; plans by Stanislaus Russell, corner Clifton Ave. and 7th St., Baltimore; B. W. & E. Minor, 224 W. Pratt St., Baltimore, recently noted as estimating.

Md., Cambridge.—Zion Methodist Episcopal Church has plans by Leon Wilde Crawford, Wilmington, Del., for edifice; English Gothic design; Port Deposit granite with limestone trimmings; 132x80 feet; two entrances; three towers, one 76 feet and two 56 feet high; main auditorium to have seating capacity of 550 and will be connected by movable partitions with Sunday-school room, which will seat 400; rooms to be finished in hardwood.

Md., Frederick.—Methodist Church, Rev. E. H. Lamar, pastor, will remodel edifice at cost of \$20,000 to \$25,000.

Miss., Gulfport.—First Baptist Church will erect \$25,000 brick edifice; W. A. Hughston, chairman committee.

Mo., St. Louis.—St. Phillip's Episcopal Church, Rev. E. D. Johnston, pastor, has plans for edifice by A. Blair Ridington, Fulerton Bldg., St. Louis; cost \$35,000. Address architect. (Recently noted.)

N. C., Charlotte.—East Avenue Tabernacle accepted plans and specifications by J. M. McMichael of Charlotte for edifice; stone foundations; brick; stone trimmings; 6500 square feet floor space; cost \$25,000. (Recently mentioned.)

N. C., Greensboro.—First Evangelical Lutheran Church, Rev. J. E. Shenk, pastor, will erect edifice; bids will be received at home of Rev. Mr. Shenk, 416 W. Washington St., where plans and specifications are on file.

N. C., Henderson.—First Baptist congregation will erect edifice. Address The Pastor, First Baptist Church.

Okla., McAlester.—First Presbyterian Church, Chas. Christenson, 109 E. Washington Ave., pastor, will not consider plans for \$60,000 edifice until after next January. (Recently noted.)

Tenn., Knoxville.—Logan Temple, Rev. Mr. Rives, pastor, will remodel edifice; structure to be veneered with pressed brick and interior remodeled; cost \$4000.

Tenn., Knoxville.—Forestdale United Brethren Church, Rev. J. M. Knight, pastor, has plans by Albert E. Gredig of Knoxville for edifice; two towers; auditorium to be 50x80

feet, with seating capacity of 300 to 400; cost about \$15,000.

Tex., Belton.—Baptist congregation will expend \$15,000 to erect Sunday-school addition recently noted; plans not completed. Address W. B. McGanty. (See "Machinery Wanted.")

Tex., Era.—Methodist Episcopal Church, Rev. E. A. Maness, pastor, will erect edifice.

Va., Richmond.—Ebenezer Baptist congregation will erect \$6000 addition to edifice. Address The Pastor, Ebenezer Baptist Church.

W. Va., Charleston.—United Brethren congregation will erect edifice. Address The Pastor, United Brethren Church.

W. Va., Martinsburg.—First Baptist Church, Rev. W. D. McCurdy, pastor, has not determined upon plans for erection of edifice recently noted.

CITY AND COUNTY

Ala., Montgomery.—Fire Station.—City will erect fire station in South Montgomery; Allen R. Gilchrist, City Engineer.

Ark., Little Rock.—Auditorium.—Board of Public Affairs is planning to remodel Auditorium; plans call for extending to side-walk, brick construction, removing seats, strengthening foundation, etc.

Ga., Macon.—Jail.—Bibb County Commissioners have plans by Alexander Blair, Macon, for improvements to jail, including two additional stories and remodeling present structure; cost about \$30,000.

Ga., Newnan.—Jail.—Coweta county will erect \$20,000 jail. Address County Commissioners.

Ga., Pelham.—City Building.—City will vote on bond issue for erection of municipal building, etc. Address The Mayor. (See "Water-works.")

La., Lake Charles.—Fire Station.—C. Brent Richard, Mayor, will receive bids until 7.30 P. M. March 17 for erection of fire station at Kirby and Bilbo Sts.; certified check for \$500; brick; cement mortar; concrete floors; cost about \$10,000; plans and specifications at office of I. C. Carter, Rigmalden Bldg., Lake Charles. (City recently noted as having plans prepared by Mr. Carter.)

La., Lake Charles.—City Hall.—City has plans by Favrot & Livaudais, New Orleans, La., for \$75,000 city hall.

Miss., Aberdeen.—City hall building will be erected at cost of \$20,000; two stories; fireproof; 100x50 feet; steam heat; sidewalk lights; iron posts, bids to be opened about April 15; architect not selected; J. M. Acker, Mayor. (City recently noted to vote April 1 on \$50,000 bond issue for hall, etc.)

Miss., Jackson.—City Hall, etc.—City was recently incorrectly noted to issue bonds for city hall, water-works and paving.

Miss., Tupelo.—City Hall.—City contemplates voting March 7 on issuance of \$50,000 of bonds for erecting city hall, etc., recently noted; C. E. Goodlet, Clerk. (See "Electric-Light and Power Plants.")

N. C., Cherryville.—Town Hall.—Town will issue \$8000 worth of bonds to erect town hall. Address Town Clerk.

S. C., Georgetown.—Fire Station.—Fire Committee will receive bids until 12 o'clock March 20 for erection of brick fire hall; certified check for \$100, payable to W. A. Black, City Clerk and Treasurer; estimated cost \$7000; plans and specifications at office of City Clerk or W. W. Hamby, architect, Columbia, S. C.; F. L. Slan, chairman of Fire Committee.

Tenn., Nashville.—Market.—City plans issuance of \$75,000 of bonds to erect addition to and remodel City Market; plans erection of two-story reinforced concrete structure; W. W. Southgate, City Engineer. (Previously noted as contemplating market improvements.)

Tenn., Union City.—Library.—City has plans by Henry D. Whitfield, 160 Fifth Ave., New York, for \$10,000 Carnegie Library. Address proposals to R. F. Tisdale. (Recently noted.)

Va., Norfolk.—Fire Station.—Board of Control asked finance committee for \$15,000 appropriation and privilege to use \$10,000 already appropriated for remodeling, to purchase site and erect No. 2 fire station.

Va., Richmond.—Armory Building.—Finance committee recommends appropriation of \$22,375.42 for repairs and lockers to First Regiment Armory.

COURTHOUSES

Ala., Talladega.—Talladega County Commissioners will open bids April 6 for erection of addition to courthouse; pressed brick; Bedford stone; terrazzo; metal frames and wired glass; fireproof vaults; cost \$20,000; plans by Charles W. Carlton, Anniston, Ala.

La., Ville Platte.—Evangeline Parish Police Jury will erect courthouse.

S. C., Union.—Union County Commissioners are having plans prepared by A. Ten Eyck Brown, Atlanta, Ga., for courthouse; 107x75 feet; semi-fireproof construction; direct and indirect steam heat; electric lighting; metal furniture; will open bids about June 1; address architects. (County previously noted as having voted \$75,000 bond issue.)

DWELLINGS

Ala., Birmingham.—J. G. Whitfield will erect residence.

Ala., Birmingham.—J. G. Whitfield plans to erect \$50,000 residence.

Ala., Birmingham.—Randall & Cartwright will erect 13 dwellings in Englewood; frame; one story; shingle roof; cabinet mantels; cost \$6500.

D. C., Washington.—Middaugh & Shannon, Colorado Bldg., has plans by Cloughton West, 222 Oxford Bldg., Washington, for six dwellings at 3349-59 20th St. N. W.; three stories; brick and frame; cost \$23,000.

D. C., Washington.—John C. Deichman, 1520 Capitol St., will erect four dwellings on S St. between New Hampshire Ave. and 18th St.; 12 rooms and three baths each.

D. C., Washington.—Harry Wardman, 1342 New York Ave. N. W., has plans by A. H. Beers, 1342 New York Ave. N. W., for 18 two-story dwellings on Spring Rd. between 13th and 14th Sts. N. W.; cost \$72,000.

D. C., Washington.—John M. Henderson, 1118 F St. N. W., will erect residence on Ingomar St.

D. C., Washington.—D. J. Dunigan has plans by N. R. Grimm, 627 F St. N. W., Washington, for three two-story brick dwellings at 3400 to 3404 Sherman Ave. N. W.; cost \$4800.

Fla., Dade City.—F. P. Daiger is having plans prepared by Jay & Larner, Tampa, for residence; eight rooms; first story of hardwood; cost \$4000.

Fla., Orlando.—Fairview Home Co. will erect 20 to 30 tenement-houses. (See "Land Developments.")

Fla., St. Augustine.—W. W. Dewhurst has plans by Fred A. Henderich, St. Augustine, for two-story nine-room cottage.

Fla., St. Petersburg.—L. F. Kirkendall will erect six or seven-room bungalow.

Fla., Tampa.—Ernest Kreher will erect residence.

Fla., Tampa.—J. E. Chance of Ocala, Fla., will, it is reported, erect residence.

Fla., Tampa.—A. G. Turner is having plans prepared by A. H. Johnson, Tampa, for story-and-a-half bungalow; seven-foot basement; 10 rooms; cost \$6500.

Fla., Tampa.—I. S. Giddens has plans by A. H. Johnson, Tampa, who will supervise construction of seven-room residence.

Fla., Tampa.—Mrs. Narrett is having plans prepared by A. H. Johnson, Tampa, for bungalow; one and a half stories; six rooms; cost \$2650.

Fla., Tampa.—F. D. Jackson is having plans prepared by F. M. Curtiss, Tampa, for eight-room residence; first floor of brick veneer; second floor of bevel siding; cost \$6000.

Ga., Newnan.—R. N. Cole will erect nine-room residence; brick veneer; steam heat; electric lighting; cost \$8000; plans by Charles E. Choate, Atlanta, Ga. (See "Machinery Wanted.")

Ga., Newnan.—W. A. Turner will erect eight-room residence; stucco; brick and stone trimmings; steam heat.

Ga., Newnan.—J. T. Williams will erect 10-room residence; brick veneer; steam heat.

Ga., Savannah.—Wm. E. Lebey will erect two-story residence.

Ga., Savannah.—South Side Baptist Church, Rev. John S. Wilder, pastor, will erect church and parsonage.

Ga., Statesboro.—J. A. McDougald will open bids April 1 for erection of proposed \$5000 residence; plans by W. B. Camp, Jacksonville, Fla.; two stories; mill construction; 45x60 feet; fireplaces; electric lighting.

Ky., Pike County.—Consolidation Coal Co. will build about 1000 miners' dwellings; two to eight rooms in each; construction will extend over two or three years; cost about \$1,000,000; all purchases will be made through A. T. Watson, purchasing agent, Fairmont, W. Va.; general offices in Continental Trust Building, Baltimore, Md. (These dwellings include the 500 reported recently.)

La., New Orleans.—J. G. Powell will erect residence.

La., New Orleans.—Martin Frank will erect two-story frame dwelling; cost \$9200.

La., New Orleans.—Joseph Vaccaro is reported to erect residence.

Md., Baltimore.—James Keely, Baltimore St. west of Gorman Ave., is having plans prepared by F. E. Beall, 213 St. Paul St., Baltimore, for 10 dwellings on Bentalou St.; two stories; ornamental iron-spot brick; marble trimmings; 14x42 feet; cost about \$12,000.

Md., Baltimore.—John J. Carlin, 215 St. Paul St., has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for six two-story dwelling on Clifton Ave. between 16th and 17th Sts.; 14x49 feet; electric lights; hot-water heat; cost \$12,000.

Md., Baltimore.—Henry Williams, 606 Union Trust Bldg., is receiving revised bids through Edward L. Palmer, architect, 408 Roland Ave., Roland Park, Md., for erection of residence on University Parkway; three stories; brick; 66x40 feet; cost about \$30,000.

Md., Baltimore.—S. Herbert Moore is having plans prepared by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for six dwellings at Park Front and Mt. Royal Aves.; reinforced concrete; hardwood floors; two and a half stories.

Md., Baltimore.—Provident Realty Corporation, Garrison and Piedmont Aves., is having plans prepared by Henry J. Tinley, 314 N. Charles St., Baltimore, for residence on Roslyn Ave., near Carlisle Ave.; two and a half stories; frame; cost \$4500.

Md., Chestertown.—W. W. Hubbard is having plans prepared by Howard Sill, 11 E. Pleasant St., Baltimore, for remodeling residence.

Md., Hancock.—Tonolowa Orchard Co. will rebuild residence reported burned; occupied by J. Andrew Cohill; 35x36 feet; mill construction; steam heat; electric lighting; concrete sidewalks; cost \$3000 to \$4000. (See "Machinery Wanted.")

Md., North Point (not a postoffice).—L. E. Read is having plans prepared by Jacob F. Gerwig, 210 E. Lexington St., Baltimore, Md., for bungalow; one and a half stories; frame; hardwood flooring; cost \$2500.

Miss., Hattiesburg.—D. E. McInnis will erect \$25,000 residence.

Mo., Kansas City.—H. A. Zurn will erect four frame dwellings; cost \$12,000.

Miss., Hattiesburg.—J. E. Davis will erect \$4500 residence; construction begun.

Mo., Joplin.—A. C. Michaelis, architect, 324 Miners' Bank Bldg., Joplin, will receive bids until March 6 for erection of brick-veneered residence for J. W. Freeman; plans at office of architect.

Mo., Kansas City.—B. A. Guignon contemplates erection of \$20,000 residence.

Mo., Kansas City.—N. J. Hall, 105 Garfield Ave., will erect three-story stone residence.

Mo., Kansas City.—J. H. Atkins will erect residence.

Mo., St. Louis.—McPherson Avenue Development Co. organized with \$2000 capital stock; will erect several residences.

Mo., St. Louis.—Fandel Realty Co. will erect three dwellings on Westminster St.; two and a half stories; brick; cost \$18,000.

Mo., St. Louis.—Mrs. M. P. Von Windeger will erect residence.

Mo., St. Louis.—Commonwealth Trust Co. will erect 12 dwellings in Forest Park district; cost \$100,000.

N. C., Charlotte.—David Owens is having plans prepared by Hunter & Gordon, Realty Bldg., Charlotte, for seven-room frame residence; cost \$5000; hot-water heat.

Okla., Oklahoma City.—Mrs. E. M. Campbell will erect \$5000 dwelling.

S. C., Florence.—Henry J. Jaeger will erect residence; two stories; 12 rooms; concrete.

S. C., Rock Hill.—W. H. McCaw will erect seven-room residence; furnace heat; electric lighting; two baths; cost \$6000; plans being prepared by Hunter & Gordon, Realty Bldg., Charlotte, N. C.

S. C., Rock Hill.—L. A. Niven has plans by N. Gaillard Walker, Rock Hill, for dwelling.

S. C., Rock Hill.—J. B. Johnson has plans by N. Gaillard Walker, Rock Hill, for remodeling residence.

S. C., Rock Hill.—A. E. Willis has plans by N. Gaillard Walker, Rock Hill, for remodeling residence.

Tenn., Alamo.—J. W. Cleek will erect residence; construction begun.

Tenn., Chattanooga.—W. H. Holmes, Chickamauga Quarry & Construction Co., will not erect building at present. (Recently noted to purchase site, etc.)

Tenn., Knoxville.—Miss Kate Ogden is having plans prepared by Albert E. Gredig, Knoxville, for residence; eight rooms; first

story brick veneer; second floor shingled; cost \$3000.

Tenn., Knoxville.—Mount Zion Baptist Church, Rev. Matthew A. Gilbert, pastor, will erect parsonage; two stories; balcony on second story.

Tenn., Nashville.—Whitland Realty Co. plans, it is reported, erection of residence.

Tex., Houston.—John L. Mendlovitz will erect residence.

Tex., Kirbyville.—J. M. Mixon of Mixon Bros. will erect residence.

Tex., Orange.—J. D. Neff has plans by Joe Alexander, Orange, for residence; two stories; eight rooms; rustic finish.

Tex., Greenville.—Bert Beall has plans by George Lindsey, Greenville, for nine-room dwelling; frame; heating not decided; electric lighting; cost \$3000; bids opened March 1. (Recently noted.)

Tex., Hamilton.—W. A. Creamer has plans by Associated Architects, 513 Slaughter Bldg., Dallas, Tex., for six-room cottage; ordinary construction; mantels; plate-glass door.

Tex., Karnes City.—John Burns will erect residence.

Tex., Palestine.—Eugene Fore will erect residence.

Tex., Palestine.—R. C. Sewell will erect residence.

Tex., Palestine.—Henry Davenport will erect residence.

Tex., Palestine.—Henry Lincoln will erect residence.

Tex., Teague.—H. G. Kernodel will erect seven-room frame dwelling. (Contract recently incorrectly noted awarded to A. T. Clark of Teague.)

Tex., Waco.—Austin Avenue Methodist Church, Rev. H. D. Knickerbocker, pastor, is having plans prepared for parsonage.

Tex., Webster.—Houston Orchards Co., J. S. Kendall, president, Houston, Tex., is proceeding with construction of dwellings recently noted; has placed contract.

Tex., Wichita Falls.—W. M. Cook has plans by Associated Architects, 513 Slaughter Bldg., Dallas, Tex., for five-room cottage; ordinary construction; cost \$2000.

Va., Danville.—Ernest L. Dodson has plans by Charles G. Pettit, Jr., Danville, for dwelling; Dutch style; red California shingle roof; stained rough weather siding; porch to have stucco columns and brick floor; hot-water heat; cost \$4000.

Va., Fredericksburg.—Board of Trustees of State Normal and Industrial School for Women opened bids for erection of president's home; E. G. Hefflin, Fredericksburg, is lowest bidder at \$11,100; plans by Charles M. Robinson, Richmond, Va. (Recently noted to receive bids until February 20.)

Va., Norfolk.—D. Lawrence Groner opened bids for erection of residence; Gregory & Williamson, Norfolk, are lowest bidders at \$10,687.

Va., Norfolk.—D. Lawrence Groner has plans by Calrow & Taylor, Norfolk, for residence; colonial style; frontage about 75 feet.

Va., Richmond.—W. B. Flagg will erect dwelling; cost \$3500.

Va., Roanoke.—J. J. Sheehan will erect brick-cased residence; 12 rooms; cost \$10,000.

Va., Roanoke.—Nellie L. McEain will erect brick-cased dwelling; cost \$7500.

Va., Norfolk.—Henry Wales has plans by B. F. Mitchell, Norfolk, for residence.

W. Va., Greggville (not a postoffice).—J. D. Merriam is having plans by C. W. Bates, Wheeling, W. Va., for residence.

W. Va., New Martinsville.—Wm. Miskimins will erect residence.

GOVERNMENT AND STATE

Ala., Montgomery.—Executive Mansion.—Bruxton B. Comer, Governor, has appointed William T. Sheehan, M. H. Screws and G. W. Covington as commission to locate site and superintend erection of Governor's mansion. (Recently mentioned.)

Md., Sykesville.—Hospital.—Specifications for Springfield State Hospital, Room 501 Union Trust Bldg., Baltimore, Dr. J. Clement Clark, superintendent, will probably be ready in about three weeks; architects, Parker, Thomas & Rice, also of Union Trust Bldg. (Recently noted.)

Miss., Jackson.—Hospital.—Proposals for general contract, heating, plumbing and wiring for State Charity Hospital, located at Jackson, will be received until 10 A. M. April 1; plans to be had from office of Whildin & Price, Title Guarantee Bldg., Birmingham, Ala.; \$25 deposit required for plans; \$750 certified check to accompany proposal on general contract; \$150 certified check for each

proposal on heating, plumbing and wiring; J. J. Coman, secretary Board of Trustees.

N. C., Raleigh.—State Building.—State Legislature reduced cost of State administration building to \$250,000; William W. Kitchin, Governor. (Recently mentioned.)

S. C., Columbia.—Hospital.—State Hospital for Insane has appropriation of \$500,000 for maintenance and erection of buildings during 1911.

Tex., Dallas.—Pavilion.—Directors State Fair, Sydney Smith, secretary, will erect livestock pavilion; steel frame; 100x168 feet; arena, 65x150 feet; 50 stalls under seats; cost \$20,000.

HOTELS

Ala., Baldwin County.—James Benis will erect two-story hotel at Orange Beach.

Fla., Fort Myers.—Mrs. M. O. Terry is reported to enlarge Royal Palm Hotel.

Fla., Tampa.—G. Fertlita contemplates erection of two additional stories to Commercial Hotel.

Ga., Augusta.—Stall & Vorhauer acquired adjoining building to Genesta Hotel; will remodel for hotel purposes; also remodel present structure and more than double capacity, increasing total number of rooms to 125; cost of improvements, \$25,000 to \$35,000.

Ga., Macon.—J. B. Pound of Chattanooga, Tenn., is reported as contemplating erection of hotel.

Ky., Dawson Springs.—James E. Wilhelm and associates will not be ready for several months to announce plans for erection of \$25,000 hotel recently noted.

Ky., Frankfort.—Leo L. Oberwarth is preparing plans for remodeling three-story hotel; 250 rooms; steam heat; electric lighting; cost \$15,000; day labor; owner's name not announced. (See "Machinery Wanted.")

La., Morgan City.—Mr. Chauvin, proprietor of Costello Hotel, will erect hotel; three stories; brick.

Md., Centerville.—Love Point Beach & Park Co. contemplates erecting hotel; 40 rooms; frame; architect not selected; recently noted incorporated (under "Miscellaneous Enterprises") with \$60,000 capital stock by James T. Bright and others to develop amusement resort.

Md., Love Point.—Love Point Beach & Park Co. (organized by James T. Bright and others of Centerville, Md.) will erect hotel; 40 rooms and bath; ornamental brick and frame; hardwood parquet flooring; interior finished in polished oak. (Recently reported under "Miscellaneous Enterprises" as incorporated with \$60,000 capital stock.)

Mo., Kansas City.—H. R. Farham is chairman of committee promoting erection of Girls' Hotel; to accommodate 150 girls; cost \$40,000.

Mo., Sedalia.—E. G. Cassidy and others will soon award contract for erection of hotel; 130 rooms; cost \$100,000.

N. C., Asheville.—L. Blomberg acquired Imperial Hotel and will make improvements.

N. C., Greensboro.—John A. Hodgkin will erect addition to Huffine Hotel; four stories; brick; 50 rooms; equipped with baths, hot and cold water.

N. C., Greensboro.—John A. Hodgkin will erect \$30,000 hotel; 50 rooms.

N. C., Raleigh.—Jones & Bailey have plans by Frank B. Simpson, Raleigh, for hotel for R. H. Hicks and T. L. Bland of Rocky Mount, N. C.; five stories and basement; 64 bedrooms; 23 bathrooms; pressed brick; Indiana limestone trimmings; 55x105 feet; lobby 30x37 feet, with tile floor and beam ceiling. (Recently noted.)

N. C., Raleigh.—Grimes Realty Co. has plans by John K. Peebles, Norfolk, Va., for remodeling Yarrowborough Hotel at cost of \$50,000; 125 rooms; elevator to cost \$3000 to \$4000; will begin work by May 1; to be completed by October 1. (Recently noted.)

N. C., Shelby.—J. A. Darwin of Athens, Ga., is reported to erect hotel at Cleveland Springs.

Okla., Bartlesville.—Jay H. Mullen invites architects to submit plans, specifications and estimates for the construction of hotel; 100x140 feet; heating plant; cost not over \$100,000.

Okla., Hugo.—C. L. and M. A. Webb have plans by E. Shelton (address care of Messrs. Webb) for 41x66-foot hotel; brick; steam heat; electric lighting; cost \$5000; bids opened. (Recently noted.)

S. C., Greenville.—Greenville Hotel Co. is reported to erect 25 or 30 additional rooms to Otway Hotel.

Tex., Bryan.—C. M. Camp of Navasota, Tex., is promoting erection of hotel; cost \$25,000.

Tex., Houston.—E. L. Dennis will erect

hotel; five stories; 100x125 feet; fireproof construction.

Tex., New Braunfels.—Charles Kock plans erection of hotel to replace Plaza Hotel; two stories; fireproof; mission style; 100 rooms and roof garden; cost \$100,000.

Tex., San Antonio.—Woods & Paschal plan erection of family hotel.

Tex., Webster.—Houston Orchards Co., J. S. Kendall, president, is proceeding with construction of hotel recently noted; has placed contract.

Va., Matewan.—R. W. Buskirk will erect hotel building; three stories; brick; 20x100 feet; electric lights; cost \$70,000.

Va., Roanoke.—C. G. Smith, proprietor of Ponce de Leon Hotel, awarded contract to J. C. Nesbitt, Roanoke, for erection of fireproof addition; seven stories; cost \$300,000. (Mr. Smith previously reported to remodel and erect addition to hotel.)

MISCELLANEOUS

Ark., Fort Smith.—Clubhouse.—Progress Club will erect clubhouse to cost \$25,000.

D. C., Washington.—Home.—John Dickson Memorial Home for Aged Men has plans by Arthur B. Heaton, 1319 F St. N. W., Washington, for building; two stories; two-story portico, supported by classic columns; frontage 270 feet; cost about \$150,000. (Previously mentioned.)

Md., Baltimore.—Dispensary.—Baltimore General Dispensary, 651 W. Lexington St., has plans by George Norbury Mackenzie, Keyser Bldg., Baltimore, for two-story dispensary to cost about \$25,000 at Fayette and Paca Sts.

Okla., Tulsa.—Home.—Salvation Army has plans and specifications for building; two stories and basement; brick; 40x75 feet; cost \$12,000 to \$14,000.

S. C., Rock Hill.—Home.—Fennell Infirmary has plans by N. Gallard Walker for Nurses' Home.

Tex., Houston.—American Woman's League will erect clubhouse to cost about \$10,000; gas and electric fixtures; furniture and fixtures to cost \$3000 to \$3500.

Tex., Houston.—Veterinary Hospital.—Fred L. Burkey will erect veterinary hospital; two or three stories; brick; 42x118 feet; cost about \$10,000.

Va., Danville.—Home.—General Hospital has plans by Pettit & Cave, Danville, for Nurses' Home; two baths and 14 bedrooms; dining, pantry and storerooms; slate roof; hot-water heat; outside walls to be faced with rough red brick; cost \$10,000.

Va., Petersburg.—Stables.—J. R. Jones will rebuild burned Bazaar stables; construction begun.

Va., Richmond.—Clubhouse.—Westmoreland Club, John G. Farland, president, will erect two additional stories and remodel clubhouse at cost of about \$20,000.

Va., Richmond.—Stable.—Purity Ice Cream Corporation will erect brick and concrete fireproof stable.

RAILWAY STATIONS

Ark., Little Rock.—Chicago, Rock Island & Pacific Railway, J. B. Berry, chief engineer, Chicago, Ill., has franchise to use certain sidewalks for erecting freight station and terminals for receiving and delivering freight, with necessary trackage; company is also to rebuild and cover with reinforced concrete present culvert or branch in 3d St. from Rector Ave. east to Collins St.; build and maintain steel or reinforced concrete viaduct for pedestrians; construct concrete or pipe storm-water sewer with catch-basin connections; pave 3d St. with vitrified brick on five-inch concrete base and rebuild sidewalks and curbing where grades are changed.

Ga., Millen.—C. K. Lawrence, chief engineer, Savannah, Ga., advises that Central of Georgia Railway has not determined relative to enlargement of freight depot and cotton platform. (Recently noted.)

Ga., Newnan.—Atlanta & West Point Railroad, C. A. Wickersham, general manager, Atlanta, Ga., and Central of Georgia Railway, C. K. Lawrence, chief engineer, Savannah, Ga., will, it is reported, erect union passenger station.

Ga., Vidalia.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va.; Macon, Dublin & Savannah Railroad, J. T. Wright, general manager, Macon, Ga., and Georgia & Florida Railway, J. M. Turner, general manager, Augusta, Ga., will erect union passenger station.

N. C., Wilmington.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., will erect freight depot to cost \$30,000 to \$35,000; bids will soon be opened.

Tenn., Memphis.—Illinois Central Railroad, Charles H. Markham, president, Chicago, Ill., will erect passenger station; colonial architecture; station proper will, it is reported, cost about \$6,000,000, and rearrangement of tracks about \$150,000; Mr. Markham telegraphs Manufacturers Record that details are not available now.

Tenn., Memphis.—St. Louis & San Francisco R. R., F. G. Jonah, chief engineer construction, St. Louis, Mo., contemplates erection of freight depot to cost about \$250,000. (See "Railway Shops, Terminals, Round-houses, Sheds, etc.")

Tex., Temple.—Chicago, Weatherford & Brazos Valley Railroad awarded contract to J. W. Yarrowborough of Temple to erect depots along route of proposed railroad.

SCHOOLS

Ala., Birmingham.—Owenton College plans expending \$85,000 for improvements.

Ala., Mobile.—State University, Montgomery, Ala., asked Legislature for appropriation for completing medical school, etc.

Ala., Montgomery.—State University asked Legislature for \$500,000 appropriation for next four years, including estimates for completing building of Greater University and completing Medical College at Mobile, Ala.

Ark., Hazen.—School Board, C. S. Proctor, president, has employed Mitchell Seligman, Citizens' Bank Bldg., Pine Bluff, Ark., to prepare plans and specifications for combined high and graded school; 12 rooms and assembly-room; plans for contractors in hands of C. S. Proctor at early date.

D. C., Washington.—Cuno H. Rudolph, John A. Johnston and Wm. V. Judson, Commissioners, D. C., will receive bids until March 6 for erection of additions and making alterations to Western High School; plans, specifications and blank forms at office of Chief Clerk, Engineer Department, Room 427 District Bldg., Washington, or may be had on deposit of \$10.

Fla., Sutherland.—Southern College, J. P. Hillburn, president, plans to erect \$30,000 boys' dormitories.

Fla., Tampa.—Baptist Home Mission Board awarded contract to Bates & Hudnell, Tampa, for erection of \$10,000 mission school and church. (See "Churches.")

Ga., Barnesville.—City will vote on \$45,000 bond issue for school improvements. Address The Mayor.

Ga., Greensboro.—City will vote March 16 on \$7000 bond issue to erect school; T. C. Holden, Mayor.

Ga., Roberta.—City plans issuance of \$5000 of bonds to erect school. Address The Mayor.

Ga., Summerville.—Summerville Academy, John W. Dow, principal, plans erection of school; fireproof; brick; equipped with gymnasium, laboratories, etc.; cost \$25,000.

La., Forest Hill.—City voted \$20,000 bond issue to erect high school building. Address The Mayor.

La., Jena.—LaSalle Parish School Board plans issuance of \$40,000 of bonds to erect school.

Md., Baltimore.—Board of Awards opened bids for erection of Polytechnic Institute building on North Ave. near Calvert St.; three stories and basement; brick and stone; Charles L. Stockhausen, National Marine Bank Bldg., Baltimore, is lowest bidder at \$385,000; plans by Baldwin & Pennington, Professional Bldg., Baltimore. (Recently more fully detailed.)

Miss., Aberdeen.—City will open bids about April 15 for erection of school for negroes; ordinary construction; cost \$8000; J. M. Asher, Mayor. (Recently noted to vote April 1 on \$50,000 bond issue for school, city hall and paying.)

N. C., Fayetteville.—Cross Creek township will vote March 22 on \$50,000 bond issue for school improvements; D. N. McLean, registrar.

Okla., Adair.—D. C. Hughes, clerk of Board of Education, will receive bids until noon March 25 for erection of two-story brick school; certified check for 2 per cent. amount of bid; plans and specifications at office of Mr. Hughes, as above, or R. L. Brock, president.

Okla., Enid.—Clerk of Board of Education will receive bids until 2 o'clock March 22 for erection of high-school building; 265x117 feet; three stories, basement and fourth-floor room; brick, stone and terra-cotta trimming; steam heat; electric lights; cost about \$200,000; plans by R. W. Shaw, Enid. (Recently more fully detailed.)

Okla., Medford.—Charles N. Ernest, clerk School District, will expend \$35,000 to erect school building; 70x114 feet; fireproof con-

struction; plans by Smith & Parr, Oklahoma City, Okla.; bids opened February 28. (Recently noted.)

Okla., Muskogee.—H. M. Chestnutt, Clerk, advises that two proposed schools will be one-story structures, costing \$1500 each. (Contract recently noted to be awarded soon.)

S. C., Spartanburg.—City will vote on \$30,000 bond issue for school improvements; H. E. Ravenel, secretary of School Board.

Tenn., Butler.—City has been authorized to issue \$9000 of bonds for erection of school; J. E. Reece, Mayor.

Tenn., Butler.—Watauga Baptist Academy, M. B. Foster, principal, will erect addition to building; cost \$6000.

Tenn., Chattanooga.—Hamilton County Commissioners will issue \$135,000 worth of bonds for school improvements.

Tenn., Cookeville.—City will erect preparatory school; main building to be brick; cost \$20,000. Address The Mayor.

Tenn., Morristown.—Morristown Normal and Industrial College will expend \$25,000 to erect school and administration building; 131 feet 6 inches by 57 feet, with wing 60 feet by 57 feet; assembly-room will have seating capacity for 600; brick and stone; slate and tin roof; ordinary construction; steam heat; electric lighting; Charles Crapsey, Cincinnati, O. (now deceased), prepared plans; construction by day labor. (Recently noted.)

Tex., Bridgeport.—School Board ordered election to vote on \$20,000 bond issue to erect and equip school.

Tex., Dallas.—Board of Education, C. M. Moore, secretary, will receive bids until March 6 for erection of O. M. Roberts school building; certified check for \$500 payable to C. C. Lane, president of Board; plans and specifications at office of architect of Board at Central High School Bldg.

Tex., Florence.—School trustees will receive bids until 1 P. M. March 10 for erection of two-story brick school; certified check for \$500, payable to J. F. Atkinson; plans and specifications at office of Endress & Walsh, architects, Austin, Tex., or of Mr. Atkinson, Florence.

Tex., Madisonville.—Madisonville Independent School District will vote March 14 on \$18,000 bond issue to erect school; brick construction. Address District School Trustees.

Tex., Port Neches.—School trustees, District No. 16, have not selected architect to prepare plans for two school buildings; ordinary construction; heating and lighting not decided; cost \$14,000 and \$30,000. (Bond issue recently noted.)

Tenn., Tullahoma.—B. H. Wilkins, E. L. Davis, W. R. Marshall and others are committee for establishment of training school; plan to lease \$40,000 building already erected and erect gymnasium at cost of \$7000; 50x100 feet; concrete or brick construction; composition roof; further details not available.

Tex., Uvalde.—Catholic church is planning to erect \$50,000 school building. Address Bishop Shaw.

Tex., Winfield.—City voted \$8000 bond issue to erect brick school. Address The Mayor.

Va., Danville.—City has plans by Charles G. Pettit, Jr., Danville, for \$30,000 school building; 60x149 feet; 14 classrooms, 22x30 feet; auditorium to seat 500; basement to be used for playrooms, etc.; interior and exterior walls of brick; fire stairs; Barrett specification roof. (Recently noted.)

Va., Richmond.—Finance committee recommends appropriation for white schools in East and West Ends, to cost \$160,000; negro school, to cost \$40,000; Chimborazo school addition, \$25,000; Arents school building, \$29,175; S. P. Walford, secretary. (School Board recently noted as asking \$600,000 appropriation for five white and four negro schools.)

Va., Swansboro, P. O. Manchester.—School Board will erect 14-room graded school.

W. Va., Athens.—State Board of Education will expend \$50,000 for rebuilding Concord Normal School. (Main and three other buildings previously reported burned.)

STORES

Ala., Mobile.—F. S. Frederic has not fully decided upon erection of store building recently noted; may build in near future.

Fla., Palatka.—W. G. Tilghman will erect addition to business block; cost \$3000.

Ga., Carrollton.—J. C. Bass will erect four-story business building; cost \$40,000.

Ga., Macon.—C. E. Newton & Bros. are reported as considering erection of business building.

Ga., Savannah.—M. Wilensky and J. Lichtenstein have plans by and will probably award contract to W. O. Howsley, Savannah, for erection of store and apartment-house; to contain three stores and three apartments; 65x90 feet; fireproof construction; gas and electric lighting; cost \$15,000. (Recently noted.)

Ky., Lexington.—Mrs. Ida W. Harrison will erect store building; two stories; brick; metal roof; cost \$6500.

La., New Orleans.—Equitable Real Estate Co. will erect five-story fireproof building to be occupied by Grant Furniture Co.

La., New Orleans.—Equitable Real Estate Co. has plans by Favrot & Livaudais, New Orleans, for five-story store building; 41x140 feet; ordinary construction; automatic sprinkler system; one freight and one passenger electric elevator; cost \$35,000. Address architects. (Recently noted.)

Md., Baltimore.—Noel Construction Co., German and Calvert Sts.; J. Henry Miller, Inc., 108 Dover St.; Henry Smith & Sons Company, 116 S. Register St., all of Baltimore, and Wells Bros. Company, 160 Fifth Ave., New York, are estimating on construction of proposed building at Baltimore and Liberty Sts. for Baltimore Bargain House, Jacob Epstein, proprietor, 204 to 220 W. Baltimore St.; Joseph Evans Sperry, 409 Calvert Bldg., Baltimore, is architect in charge. (Lately noted.)

Md., Cumberland.—John J. Stump & Co. will erect two-story brick business building; 35x66 feet; ordinary construction; steam heat; gas and electric lighting; hand-power elevator; cost \$5000; plans by James C. Powell, Cumberland, also probable contractor. (See "Machinery Wanted.")

Miss., Georgetown.—F. B. and W. W. Catching will erect four store buildings to replace burned structures.

Miss., Georgetown.—J. P. Sheppard will erect brick business building to replace burned structure.

Mo., Joplin.—Henderson estate will erect department-store building; three stories; construction to permit erection of three additional stories later; cost \$35,000.

Mo., St. Louis.—Adam Heckemeyer will erect business building.

Mo., St. Louis.—F. N. Dooley will erect stores and apartments.

N. C., Elizabeth City.—E. F. Aydlott will erect store building; three stories.

N. C., Shelby.—Weathers & Hoard will erect business building.

Okla., Muskogee.—A. C. Carlow will erect four storerooms.

Okla., Tulsa.—E. L. Fox will open bids about May 1 for erection of store and office building; five stories; stores below; office above; fireproof construction; vacuum steam heat; gas and electric lighting; passenger elevator; cost \$65,000; plans by J. P. Curtin, 432 Reeder Bldg., Tulsa. (Recently noted under "Miscellaneous Structures.")

Okla., Tulsa.—Johnson Bros. has plans by J. P. Curtin, 432 Reeder Bldg., Tulsa, for wholesale and retail grocery store; five stories; 50x80 feet; fireproof construction; vacuum steam heat; electric lighting; prism lights; one passenger and one freight elevator; cost \$48,000; will open bids about May 1.

S. C., Anderson.—H. C. Townsend will erect two stores; 54x135 feet and 24x136 feet; one story and basement; brick; cost \$7500.

S. C., Hartsville.—Dr. J. L. Powe has plans by N. Gaillard Walker, Rock Hill, S. C., for two-story store and office building.

S. C., Jonesville.—J. J. Littlejohn Company will erect 24x100-foot building on site of recently noted burned building; mill construction. Address proposals to W. W. Wood.

S. C., Jonesville.—J. F. Alman will rebuild store; 30x106 feet; cost within \$5000; architect not employed. (Recently noted burned.)

Tex., Edna.—Geo. F. Simons will erect brick business building.

Tex., Elgin.—Max Hirsch will erect store building.

Tex., Fort Worth.—Frank Weaver contemplates erection of number of business buildings on Commerce St.

Tex., Karnes City.—W. H. Koch will erect brick business building.

Tex., Lovelady.—R. W. Stipper awarded contract to A. J. Norris, Crockett, Tex., for erection of 27x76-foot store building recently noted.

Tex., Luling.—T. Wilson, Sr., is planning to erect brick store.

Tex., Temple.—Temple Lodge, No. 138, Benevolent and Protective Order of Elks, will erect \$35,000 mercantile and lodge building. (See "Association and Fraternal Buildings.")

Tex., Texas City.—J. W. Livingston of

Long Branch, Mich., and H. P. Ellis of Paris, Tex., will erect business building; two stories; brick; 125x75 feet; cost \$20,000.

Va., Crockett.—John S. Dix will erect two-story store building.

Va., Norfolk.—Lee & Diehl, Norfolk, prepared plans for remodeling DeCordy dwelling into two stores.

Va., Petersburg.—A. Rosenstock & Co. are having plans prepared by Huggins, Bates & Coeburn, Roanoke, Va., for store to replace burned structure; slow-burning construction; four stories; brick; cost \$50,000. (Previously noted to be rebuilt.)

Va., Richmond.—Brown & Co. will erect store building; brick; 40x130 feet.

W. Va., New Martinsville.—Thompson & Muleman will erect business building; two stories; brick; fireproof construction. (Previously reported burned at loss of \$15,000.)

W. Va., New Martinsville.—Irven Ober will erect business building to replace burned structure; two stories; brick; 118 feet long.

W. Va., Welch.—Mrs. Sarah Brewster has plans by Pedigo & Garry, Bluefield, W. Va., for business building; 20x59 feet; ordinary construction; hot-air heat; electric lighting; cement sidewalks; cost \$5000; date of opening bids not determined. (Recently reported burned.)

THEATERS

Ga., Fitzgerald.—H. A. Burkhardt has plans by J. D. Nash, 63 Whiteford Ave., Atlanta, Ga., for theater and store building; 75x170 feet; ordinary construction; cost \$12,000. (Recently noted.)

Ga., Atlanta.—John G. Evins, proprietor of Vaudeville, leased building and will remodel for moving-picture theater to seat over 800 people; cost of equipment between \$20,000 and \$25,000.

La., New Orleans.—John Alexander and others will not erect theater as was recently stated.

Md., Baltimore.—Abraham Benesch and Louis Benesch, 415-17 Gaither Estate Bldg., are having plans prepared by Theodore Wells Pietsch, American Bldg., Baltimore, for moving picture theater at 1358-60 W. North Ave.; one story; brick; seating capacity 400.

Mo., St. Louis.—Casablanca Amusement Co.

will erect \$20,000 moving-picture theater on Olive St.; 91x150 feet.

S. C., Orangeburg.—Fralley Bros. are considering erection of theater.

WAREHOUSES

Ala., Decatur.—Brook & Spight Wholesale Grocery Co. will erect brick warehouse.

Ga., Macon.—B. T. Adams will erect warehouse; plans not determined.

Ga., Norcross.—H. M. Lively will erect brick warehouse.

Ga., Valdosta.—Georgia & Florida Railway, W. A. Swallow, chief engineer, Augusta, Ga., will erect two brick warehouses, each 62x221 feet; cost about \$25,000; contract will soon be awarded.

Ga., Valdosta.—Georgia Southern & Florida Railway, W. C. Shaw, Jr., chief engineer, Macon, Ga., will, it is reported, erect chain of warehouses to cover block from Patterson to Toombs St.

Ky., Maysville.—Growers' Tobacco Warehouse Co. organized by W. W. Ball (cashier First National Bank) with \$18,000 capital stock to erect frame warehouse 100x350 feet for storing leaf tobacco; architect is preparing plans.

Ky., Paris.—Farmers & Growers' Loose Leaf Tobacco Warehouse Co. incorporated with \$75,000 to \$100,000 capital stock to erect tobacco warehouse; plans also include construction of redrying plant capable of handling 100,000 pounds of tobacco daily.

La., Gretna.—Southern Cotton Oil Co. will rebuild warehouse reported burned; reinforced concrete; fireproof.

Mo., Kansas City.—Builders' Material Supply Co. will erect brick warehouse to cost \$5000.

Mo., St. Louis.—Beck & Corbitt Iron Co. will erect addition to plant; improvements, when completed, will give company seven-story building 222x226 feet; cost about \$80,000.

Mo., St. Louis.—Manufacturers' Railway Co. of St. Louis, G. F. Moore, president and general manager, has completed all arrangements for erection of proposed warehouse and terminals.

N. C., Winston-Salem.—R. J. Reynolds Tobacco Co. contemplates erecting warehouse for storage of leaf tobacco.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Va., Norfolk.—W. S. Bensten awarded contract to Walker Construction Co., Norfolk, for erection of brick apartment-house; cost \$29,100.

Va., Norfolk.—Benson Apartment Co. awarded contract to Walker Construction Co., Norfolk, for erection of apartment-house; cost \$29,100.

ASSOCIATION AND FRATERNAL

Ga., Albany.—Young Men's Christian Association awarded contract at \$28,000 to C. D. Smith, Albany, for erection of building; total cost \$32,000; plans by M. J. Reidy, Albany.

Tex., Huntsville.—Knights of Pythias have plans by and awarded contract to W. H. Randolph, Huntsville, for erection of two-story lodge building; 40x50 feet; brick; heating and lighting not decided; cost \$4000. (Recently noted.)

Tex., Mount Vernon.—Ancient Free and Accepted Masons awarded contract to Goodloe & Welch, Mount Vernon, to erect lodge building; cost \$3500.

Va., Petersburg.—Mechanics' Benevolent and Mechanical Association awarded contract to W. J. Davis, Newport News, Va., for erection of office building; seven stories; fireproof; four stories on ground floor; offices above; cost \$120,000. (Recently noted as having plans prepared by John K. Peebles, Norfolk, Va.)

BANK AND OFFICE

Ark., Little Rock.—Commercial National Bank awarded contract to Stewart-McGehee Construction Co. of Little Rock to erect bank building; 10 stories; 80x100 feet; cost about \$250,000; plans by George R. Mann, Little Rock. (Recently mentioned.)

N. C., Maxton.—Bank of Robinson awarded contract to J. W. Stevenson Construction Co., Rockingham, N. C., for erection of proposed bank building; plans by J. C. Paris, Maxton; cost \$8000; pressed-brick structure with limestone trimmings; sheet-metal cornice; tin roof; tile floor; heating and lighting plans not let.

Ga., Atlanta.—Southern Railway, D. W. Lum, chief engineer, Washington, D. C.,

awarded contract to R. M. Walker of Atlanta to erect office building and inbound freight station. (See "Railway Stations.")

CHURCHES

Fla., Tampa.—Baptist Home Mission Board awarded contract to Bates & Hudnell, Tampa, for erection of mission church and school; 40x66 feet; ordinary brick construction; electric lighting; cost \$10,000; plans by A. L. Shaw, Tampa. (Recently noted.)

Miss., Vicksburg.—Bethel A. M. E. Church awarded contract to R. B. Howard of Vicksburg at \$21,500 to erect edifice; plans by William Stanton of Vicksburg.

N. C., Lumberton.—Methodist Church awarded contract to Blythe & Isenhour, Charlotte, N. C., to erect edifice.

CITY AND COUNTY

Fla., Tampa.—Pavilion.—City awarded contract to Aulick & Miller, Tampa, for erection of pavilion; 22x70 feet; ordinary construction; cost \$2000; plans by Bonfoey & Elliott, Tampa. (Recently noted.)

Md., Baltimore.—Vault.—City awarded contract to J. J. Walsh & Son, 1533 Maryland Ave., Baltimore, for erection of vault in City Hall Annex; 26x26 feet; two stories; reinforced concrete; cost about \$3600. (Messrs. Walsh recently noted as lowest bidders.)

Md., Cumberland.—City Hall.—City awarded contract to Henry L. Brown, Philadelphia, Pa. (recently noted as lowest bidder), for erection of city hall; 70x80 feet; concrete construction; cut-stone exterior; terra-cotta dome; steam heat; electric lighting; cost \$30,000; plans by Holmboe & Lafferty, Clarksville, W. Va.

COURTHOUSES

Ala., Carrollton.—Pickens county awarded contract at \$912.57 to F. M. Clecker & Co., Anniston, Ala., for erection of courthouse annex.

Ga., Griffin.—Spalding County Commissioners awarded contract to Newton Coal & Lumber Co., Griffin, for erection of courthouse recently noted; three stories; brick, granite and stone, with terra-cotta trimmings; semi-fireproof construction; electric lighting; cost \$75,000; plans by A. Tea Eyck

Brown, Forsyth Bldg., Atlanta, Ga. (See "Machinery Wanted.")

DWELLINGS

Ala., Bay Minette.—Bay Minette Land Co. awarded contract to B. C. Britt, Bay Minette, for erection of several dwellings.

Ala., Decatur.—W. W. Hildgeway awarded contract to W. B. Spahn, Decatur, for erection of residence.

D. C., Washington.—Mrs. Eleanor L. Bolling awarded contract to Howard Etchison, The Kalorama, for erection of residence at 2136 Wyoming Ave.; three stories; cost \$9000.

D. C., Washington.—A. W. Crittenden, 3815 Woodley Rd. N. W., awarded contract to Robey Bros., Asbury Park, N. W., Washington, for erection of dwelling at 2823 Woodley Road N. W.; cost \$4000.

D. C., Washington.—Warren Brenzler awarded contract to Hoge & Luckert Company for erection of \$10,000 residence at 1777 Columbia Rd. N. W.; three stories; 25x70 feet; heating plant to cost \$700; plans by A. B. Mullett & Co., Union Trust Bldg., Washington.

Fla., St. Augustine.—F. W. Bodley awarded contract to E. J. Masters, St. Augustine, for erection of dwelling; 32x48 feet; frame; stained shingles; concrete foundation; cost \$1000; plans by Fred A. Henderich, St. Augustine. (Recently noted.)

Fla., Tampa.—Home Building Co. awarded contract to Frank B. Walker, Tampa, for erection of five dwellings; cost \$13,750. (Previously noted as having plans prepared by A. H. Johnson, Tampa.)

Ga., Newnan.—W. G. Post will erect residence; nine rooms; frame; hot-air heat; electric lighting; cost \$6500; plans by Haralson Bleckley, Atlanta, Ga.; contract awarded to W. S. Askew & Co., Newnan. (See "Machinery Wanted.")

La., Shreveport.—George Freeman will expend \$6500 to erect dwelling; 48 feet 6 inches by 68 feet 6 inches; one and a half stories; ordinary construction; frame; natural gas in asbestos-lined grates; electric lighting; plans by Edward F. Nield and Charles F. Owens, Continental Bldg., Shreveport; contract recently noted awarded to Garson Bros., Room 16, Majestic Bldg., Shreveport.

Md., Baltimore.—Waverly Development Co., Law Bldg., awarded contract to W. A. Foreman, 61 Gunther Bldg., Baltimore, for erection of 30 dwellings on Reisterstown Rd.; twin brick; porch fronts; pressed-brick fronts; cost \$10,000.

Md., Baltimore.—Harvey Middleton will expend \$11,500 to erect dwelling; 55x32 feet; brick; hot-water heat; electric lighting; plans by E. L. Palmer, Roland Park; contract recently noted awarded to Roland Park Company, Roland Park.

Md., Round Beach (not a postoffice).—J. W. Scott awarded contract to R. B. Mason, 210 E. Lexington St., Baltimore, Md., for erection of residence; bungalow style; one and a half stories; overhanging slate roof; hardwood interior finishings; cost about \$2000; plans by Jacob F. Gerwig, 210 E. Lexington St., Baltimore, Md.

N. C., Winston-Salem.—L. C. Stinson awarded contract to D. J. Hendrick, Winston-Salem, for erection of two-story 12-room dwelling; frame; shingle roof; electric lights; cost \$2700.

Okl., Muskogee.—Hamlin Garland awarded contract to Methanics' Mill & Construction Co., Muskogee, for erection of three residences.

Tex., Yoakum.—Mrs. Rosa Dodd awarded contract for erection of two bungalow-style cottages.

Va., Harrisonburg.—E. C. Wine has plans by and awarded contract to J. S. Heatwole Company, Harrisonburg, Va., for erection of dwelling; 31x48 feet; ordinary construction; hot-air heat; electric lighting; cost \$3000. (See "Machinery Wanted.")

W. Va., Wheeling.—Harry L. Bond awarded contract to H. A. Hawkins, Wheeling, for erection of residence; two and a half stories; half-shingled frame; eight rooms; plans by George H. Dieringer, Wheeling.

W. Va., Wheeling.—Elmer Olmstead awarded contract to Porter, Arick & Bitzer, Wheeling, for erection of residence; eight rooms; plans by Geo. H. Dieringer.

W. Va., Wheeling.—Harry L. Bond awarded contract to Hugh Hawkins, The Island, P. O. Wheeling, for erection of residence in Woodlawn.

HOTELS

Ark., Helena.—T. P. Reynolds & Co., Helena, have contracts for erection of \$40,000 hotel; 90 bedrooms.

Ky., Louisville.—Sam P. Jones of Commer-

cial Bank & Trust Co. and James E. Gamble of Home Merchants' Trading Co. awarded contract to Caldwell & Drake, Columbus, Ind., for erection of hotel; 12 stories; 230 of 256 rooms equipped with private baths; steel and concrete; first two stories of terra-cotta; upper stories of brown pressed brick; terra-cotta trimmings; lobby to have ceramic tile floor; Italian marble walls, columns and staircase; ceiling 24 feet above floor in main lobby; three passenger elevators; cost, including site, furnishings, etc., \$500,000 to \$1,000,000; plans by Brinton B. Davis of Louisville; will be leased by John B. Pound of Chattanooga, Tenn. (Messrs. Jones and Gamble recently noted as contemplating erection of above structure.)

Tex., Fort Worth.—C. A. O'Keefe awarded contract to Sam A. Tomlinson, Fort Worth, for erection of \$100,000 hotel; three stories; 60 rooms; will erect three additional stories later.

MISCELLANEOUS

Miss., Meridian.—Clubhouse.—Standard Club awarded contract to L. W. Hancock, Meridian, Miss., for erection of clubhouse; three stories; 50x80 feet; pressed brick; steam heat; electric lighting; cost \$20,000. (Recently noted.)

S. C., Columbia.—Hospital.—Columbia Medical Association awarded contract to John J. Cain Construction Co. of Columbia to erect addition to hospital; brick; two stories and basement; slate roof; increase capacity by 70 to 75 beds; elevators, dumbwaiters, etc.; cost estimated at \$45,000; construction begun; plans by James B. Urquhart of Columbia.

Tex., Dickinson.—Clubhouse.—Oleander Country Club awarded contract to Janssen & Zempfer, Galveston, Tex., to erect proposed clubhouse; two stories and basement; concrete foundation; concrete walls to extend to height of 2½ feet; exterior to be finished in rough stained wood; shingle roof; electric lighting; structure will be 179x39 feet; frame; cost \$25,000; plans by Mauran & Russell, St. Louis, Mo.

Tex., Spur.—Sanitarium.—Dr. T. Standifer awarded contract for erection of sanitarium; two stories; brick; 25x80 feet.

RAILWAY STATIONS

Ala., Mobile.—New Orleans, Mobile & Chicago Railroad, W. F. Owen, general manager, awarded contract to Jett Bros. Contracting Co. of Mobile to erect combination freight and passenger station to cost about \$35,000.

Ala., Ozark.—Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, N. C., awarded contract to E. W. Parker, 214 Curry Bldg., Tampa, Fla., for erection of \$8000 freight station; 35x252 feet; brick, with slate or asbestos roofing; electric lighting.

Ala., Tusculum.—Southern Railway awarded contract to Harry B. Austin, Florence, Ala., to erect passenger station.

Fla., Arcadia.—Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, N. C., awarded contract to E. W. Parker, 214 Curry Bldg., Tampa, Fla., for erection of 32x296-foot passenger and freight station; cost about \$15,000; brick, with slate or asbestos roofing; electric lighting.

Fla., Clearwater.—Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, N. C., awarded contract to E. W. Parker, 214 Curry Bldg., Tampa, Fla., for 28x188-foot passenger and freight station, previously noted; cost \$10,000; brick, with slate or asbestos roofing; electric lighting.

Fla., Kissimmee.—E. W. Parker, 214 Curry Bldg., Tampa, Fla., recently noted to receive contract for erection of \$10,000 passenger station for Atlantic Coast Line Railroad, advises he has also been awarded contract for construction of Express Co.'s building, which was mentioned in same connection; cost of express building \$3800; both brick structures; slate or asbestos roofing; electric lighting.

Ga., Atlanta.—Southern Railway, D. W. Lum, chief engineer, Washington, D. C., awarded contract to R. M. Walker of Atlanta to erect inbound freight station and office building; six stories high between Mitchell and Nelson Sts. and three stories between Nelson and Peters Sts.; frontage 700 feet on Madison Ave. from Mitchell to Peters St.; first and second floors of both buildings, first on level of railroad tracks and second on level of Madison Ave., for delivery of inbound freight; cars unloaded into first floor and freight carried by elevator to second floor, out of which it will be delivered to wagons on Madison Ave. level; two floors for freight delivery will have floor space of about 70,000 square feet; third floor and building between Nelson and Peters Sts. and four upper floors of six-story building be-

tween Mitchell and Nelson Sts. for offices; three-story structure will be 464 feet long and 50 feet wide, constructed entirely of reinforced concrete; six-story building will be 232 feet long and 50 feet wide, steel skeleton, concrete floors and pressed-brick finish; construction to provide for additional stories in future. (Previously mentioned.)

Tex., Eagle Lake.—Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex., awarded contract to E. N. Vanderslice, Oklahoma City, Okla., to erect combination passenger and freight station; brick; concrete foundation; 116½x25 feet; will be surrounded by wide platform, making entire structure 148 feet long; glazed red tile roof; interior finished with plaster; concrete floors; each room to have wainscoting of glazed red brick to height of five and a half feet; cost \$8000 to \$10,000.

SCHOOLS

Ga., Cordele.—City will expend \$12,500 to erect additions to O'Neal high-school building; two stories; steam heat; electric lighting; plans by T. F. Lockwood, Columbus, Ga.; contract recently noted awarded to Little & Phillips, Cordele.

Ga., Gainesville.—Bond Commission awarded contract at \$12,500 to E. L. Prater, Gainesville, for erection of school; plans by Cunningham Bros., Greenville, S. C. (Recently noted to receive bids until February 15.)

Miss., Cleveland.—Bollivar County Agricultural High School awarded contract to Clamahan & Terry, Columbus, Miss., for erection of school; plans by William Drago, 1002 Perina Bldg., New Orleans. (Recently noted to receive bids until February 29.)

Va., Lynchburg.—Randolph-Macon Woman's College has definitely arranged plans for erection of new dormitories; details are in hands of Pettyjohn & Co. of Lynchburg, who have erected previous buildings for the college. (Recently noted.)

STORES

Ark., Little Rock.—Mrs. A. L. Shader, 1824 Broadway, awarded contract to M. B. Holstege (address care of Mrs. Shader) for erection of store building; two stories and basement; 50x140 feet; brick and concrete walls; gas and electric lighting; electric elevator; cost \$12,500; to be completed by April 15. (Recently noted.)

D. C., Washington.—B. Horn awarded contract to David McCarragher, 1225 G St. N. W., Washington, for improvements to building at 922-24 F St. N. W.; cost \$4500; plans by M. Lepley, 469 H St. N. W., Washington.

Ga., Macon.—Merritt Hardware Co. awarded contract to W. J. Beeland, Macon, for erection of business building; four stories and basement.

La., Grand Cane.—Dr. J. L. Leopold awarded contract to J. D. McClenny, Tenoka, Tex., for erection of two store buildings; two stories; 25x60 feet; fireproof construction; plans by E. A. George, Shreveport, La. (Recently noted.)

N. C., Sanford.—W. T. Buchanan will erect store building; two stories and basement; 4x30 feet; brick; brick foundation; awarded contract to J. W. Stout of Ramseur, N. C., for brick work, and to Scott Thomas of Sanford for wood work.

Tex., Dallas.—Sonneborn Bros. Oil Co. awarded contract to Crisman & Nesbitt, Dallas, for erection of business building; three stories; brick; cost \$30,000; plans by Lang & Wittich, Dallas.

Tex., Dallas.—Representatives of Wainwright Estate of Pittsburg, Pa., awarded

contract to Lou R. Wright, Dallas, for erection of business building; four stories; brick; cost \$30,000 to \$35,000; plans by Hubbell & Greene, Dallas.

Tex., Houston.—M. E. Foster awarded contract to G. C. Street, Jr., Houston, for erection of two-story brick business building; frontage 100 feet; pressed-brick and plate-glass front; foundation and steel and iron to permit erection of several additional stories later; freight elevator; plans by C. D. Hill & Co., Houston. (Previously noted.)

Tex., Longview.—Herman Yates will erect two-story store building; 25x75 feet; fireproof construction; cost \$6000; contract awarded to D. Fuqua & L. D. Wooten (address care of Mr. Yates).

Tex., Lovelady.—R. E. Parker awarded contract to A. J. Norris, Crockett, Tex., for erection of store building; 27x76 feet; cost \$3000. (Recently noted.)

Tex., Lovelady.—Kennedy Bros. awarded contract to A. J. Norris, Crockett, Tex., for erection of store building; 27x76 feet; ordinary brick construction; cost \$2000. (Recently noted.)

Tex., Dallas.—H. J. Cohn awarded contract to Crisman & Nesbitt, Dallas, for erection of store building recently noted; 50x90 feet; natural-gas heating; cost \$20,000; plans by Lang & Wittich, Dallas. (See "Machinery Wanted.")

Tex., Lovelady.—J. L. Murray awarded contract to A. J. Norris, Crockett, Tex., for erection of store building; 27x76 feet; ordinary brick construction; cost \$2000. (Recently noted.)

Va., Norfolk.—Dr. Sturgis awarded contract to W. H. Butt, Norfolk, for erection of brick store building; construction begun.

THEATERS

Fla., Orlando.—J. B. Magruder awarded contract to Mr. Hawley, Orlando, for erection of opera-house; 50x75 feet; seating capacity 1000.

Ga., Atlanta.—Music Festival Association awarded contract to R. M. Walker, Atlanta, for rebuilding stage at Auditorium Armory; cost several thousand dollars.

La., New Orleans.—Sam & Lee S. Shubert of New York awarded contract to James Geary, New Orleans, for theater; brick, concrete and steel; fireproof; three galleries; two elevators; seating capacity, 1850; plans by Frederick Brown, 316 Barronne St., New Orleans. (Previously noted.)

Md., Baltimore.—Empire Theater Co. of New York will expend \$200,000 to erect theater; three stories; 85x126 feet; brick, stone and terra-cotta; fireproof construction; plans by Otto G. Simonson, American Bldg., Baltimore; contract recently noted awarded to Cramp & Co., Denckla Bldg., Philadelphia, Pa.

WAREHOUSES

Md., Baltimore.—Frank Harrison awarded contract to Milton C. Davis, 15 E. Fayette St., Baltimore, to erect warehouse; five stories; 19x49 feet; brick; plans by Mott & White, 322 N. Charles St.

Md., Baltimore.—Swift & Co., 39 and 411 S. Entaw St., awarded contract to B. F. Bennett Bldg. Co., 123 S. Howard St., to erect warehouse at Pratt and Howard Sts.; two stories; brick and stone; concrete floors.

S. C., Greenwood.—W. C. Collins awarded contract to Sneed Lumber Co., Greenwood, for erection of proposed warehouse; brick; 50x120 feet; ordinary construction; electric lighting; cost \$6000; plans by Cuthan & Cuthan, Greenwood.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Anniston.—Reported that W. H. Weatherly and others are contemplating a revival of the plan to build a railroad from Anniston, Ala., to Columbus, Ga.

Ala., Birmingham.—P. S. Briggs, representing Morris Bros., bankers, of Philadelphia, who are interested in the proposed Tidewater Interurban Railway, is quoted as saying that construction will begin this week near Bessemer. McArthur Bros., contractors, are represented by W. G. Sloan, chief engineer. J. M. Dewberry of Birmingham is vice-president of the road.

Ala., Decatur.—A dispatch says that an electric interurban railway is projected by Decatur business men to connect Decatur, New Decatur and Huntsville by a line about 25 miles long. The secretary of the Decatur Board of Trade may be able to give information.

Ala., Mobile.—An officer of the Mobile & Ohio Railroad says that no definite information can be given now about the improvement and enlargement of freight yards at Mobile. B. A. Wood is chief engineer.

Ala., Goodwater.—An officer of the Illinois Central Railroad denies the report that the company is preparing to spend from \$25,000 to \$50,000 at Goodwater for siding and other improvements.

Ala., Tuscaloosa.—A dispatch says that construction of the Tuscaloosa Mineral Railroad is assured. It will consist of 29 miles of line, and will provide a new route to Birmingham. F. G. Blair is president.

Ark., Little Rock.—An ordinance has been passed and approved granting franchise to the Chicago, Rock Island & Pacific Railway for its proposed freight terminal between 3d and 4th Sts. and Rector Ave. and McLean St. Considerable trackage will be built. J. B. Berry is chief engineer at Chicago, Ill.

Ark., Little Rock.—W. G. Seaver, 10 Wall St., New York, and Chester, Pa., writes that the Mississippi Northwestern Railroad is the name of the proposed line for which he is investigating. It will run from Mobile, Ala., or Pascagoula, Miss., to Pierre, S. D., or Omaha, Neb., 1685 miles, via Canton and Yazoo City, Miss.; Benton, Clarksville and Bentonville, Ark.; Joplin, Mo.; Fort Scott and Topeka, Kans. Several bridges will be required. A construction company will be formed. Mr. Seaver is acting as president and general manager; W. A. Pollock of Pascagoula, vice-president, and J. M. Seales of Vicksburg, Miss., chief engineer. S. S. Watson, 10 Wall St., New York, is general counsel. Financing is assured upon condition that the investigation of route is approved. Investigation just completed in Mississippi.

Ark., Pine Bluff.—Concerning the report that President J. F. Rutherford of the Anderson & Salline River Railroad had sold 14 miles of the line to capitalists who might connect it with the Rock Island System, a letter to the Manufacturers Record says that there is nothing to be said at present.

Fla., Maytown.—Wm. M. Wadley confirms report that the Wright & Wadley Company has the contract for the Florida East Coast Railway's extension from Maytown to Lake Okeechobee via Whittier, 125 miles. Route is level; work is begun. The only bridging is trestle work.

Fla., Sanford.—Survey is reported begun for the Citrus Southern Railway from Sanford to Kissimmee, Fla., about 50 miles via Altamonte Springs, Maitland, Winter Park, Orlando, Conway, Taft and St. Cloud. Right of way nearly all secured. Gasoline-electric cars are to be used; capital \$500,000; charter applied for. T. K. Miller is president; J. J. Brophy, vice-president and general manager; Moore Kelly, treasurer; J. M. McCue, secretary, all of Pittsburg, Pa. Construction is to start within 30 days.

Fla., Tampa.—The Seaboard Air Line, it is reported, has authorized the construction of 2000 feet of track at its terminal on Seddon Island, near Tampa. W. L. Seddon is chief engineer at Portsmouth, Va.

Fla., Tallahassee.—An officer of the Georgia, Florida & Alabama Railroad writes that he knows nothing of any contemplated extension. This refers to a recent report that an extension might be made in the neighborhood of Tallahassee.

Ga., Brooklet.—President J. N. Shearouse of the Shearwood Railroad, writes that it contemplates building 32 miles of line from Pembroke via Brooklet to Oliver, Ga., through level country. John A. Calhoun is vice-president and J. H. Washington treasurer.

Ga., Carnesville.—An officer of the Carnesville Railway Co. says that date for opening construction bids cannot be given now. Proposed line is from Toccoa via Mize and Red Hill to Carnesville, Ga., 20½ miles. One Howe truss bridge required. W. S. Erwin is president at Clarksville, Ga.; A. W. Wilson is chief engineer.

Ga., Blakely.—The Blakely Railroad Co., says a report from Atlanta, has been granted its charter. The proposed line, as heretofore reported, is from Blakely to Jakin, Ga., 22 miles. W. C. Snodgrass and others, all of Thomasville, Ga., are the incorporators.

Ga., Macon.—Rumored that the Macon, Dublin & Savannah Railroad is considering plans to build an extension from Macon to Atlanta, about 80 miles, and another extension from Vidalia to the seacoast, 100 miles. J. T. Wright is vice-president and general manager at Macon, Ga.

Ky., Hickman.—Official: The Nashville, Chattanooga & St. Louis Railway has let contract to John Brady & Co. for two and a half miles of new line from East Hickman to West Hickman, to take the place of present line, which will be abandoned on account of encroachments by the Mississippi River. Hunter McDonald is chief engineer at Nashville, Tenn.

Ky., Paris.—The Louisville & Nashville Railroad, it is reported, will build an extension from Paris via North Middletown and Sharpsburg to Morgan county. W. H. Courtney is chief engineer at Louisville, Ky.

Ky., Webbville.—Reported that a company has been formed in New York to build a railroad from Webbville to Poor Fork, in Harlan county, and that Roy Wilhoit, clerk to the Railroad Commission at Frankfort, Ky., is one of the organizers. \$250,000 is reported subscribed. The line will reach Paintsville, Salyersville and Hindman, besides other points. Survey is to begin June 30.

La., Fields.—The Gulf, Sabine & Red River Railroad, says a report, is building a four-mile extension north from Fields, and the line may eventually be extended to Alexandria, La., about 50 miles.

Md., Cumberland.—The Western Maryland Railroad, it is stated, will build a two-mile track from Knobley tunnel toward Cumberland. H. B. Pratt is chief engineer at Baltimore, Md.

Md., Frederick.—The Northern Central Railway (Pennsylvania system) will, it is reported, improve its freight terminal tracks in Frederick. J. H. Nichol is principal assistant engineer at Williamsport, Pa.

Md., Hagerstown.—Engineers of the Burton Construction Co. of Richmond, Va., are reported to have begun survey for the proposed electric line from Hagerstown to Clear Spring. Construction is expected to begin in the spring.

Mo., Kansas City.—The Interstate Railway Co., of which J. H. Pickering of Kansas City is chief engineer, will, it is reported, build 48 miles of line and five miles of sidings this year.

Mo., Kansas City.—An official letter confirms the report that contract has been let the L. J. Smith Construction Co. of Kansas City for construction of the St. Louis-Kansas City Electric Railway. Road will be 250 miles long between the two points named via Higginsville, Marshall, Columbia and Warrenton. Two steel bridges over the Missouri River and a number of smaller steel and wooden bridges will be required. Headquarters 1014-1016 Commerce Bldg., Kansas City. D. C. Navin is president; John H. Berkshire, vice-president; H. V. Johnson, treasurer; H. E. Insley, secretary; W. I. Allen, general manager; E. M. Stayton, chief engineer.

Mo., St. Louis.—An official of the Manufacturers' Railway says that all arrangements have been made for its enlargement of terminals. G. F. Moore is president.

N. C., Durham.—Application has been made to charter the Durham & Danville Railroad Co. to build a line from Durham, N. C., to Danville, Va., 51 miles. The promoters are quoted as saying that it will be in operation within two years; capital \$250,000. The incorporators are C. C. Wake, C. M. Carr, H. E. Satterfield, J. F. Willy, W. F. Car, W. B. Guthrie, J. L. Morehead of Durham and others. The route is via Yanceyville.

N. C., Rutherfordton.—George L. McKay is reported as saying that the Isothermal Traction Co. has secured a new charter as the North Carolina Interurban Railway Co. to build its proposed electric railway from Gastonia via Rutherfordton to Asheville, about 100 miles. Several branches are contemplated, including one from Rutherfordton to Tryon. The chief engineer has about completed plans.

N. C., Salisbury.—An officer of the Salisbury Railway Co. is quoted as saying that the plan is for a line from Salisbury via Faith, Mt. Pleasant, Monroe and Jefferson to McBee, S. C., about 100 miles. W. H. Miller is president and C. H. Miller chief engineer, both at Salisbury, N. C.

N. C., Waynesville.—The South Atlantic Transcontinental Railway Co., promoted by Col. S. A. Jones of Waynesville, is reported to have started construction between Waynesville and Dellwood.

Okla., Alva.—An official of the Winnipeg, Salina & Gulf Railway Co. is quoted as saying that it is expected to let contract in May next. The proposed line is from Winnipeg, Canada, to the Gulf of Mexico. Location surveys in progress between Alva, Buffalo, Gate and Beaver City, Okla., about 100 miles. Location survey made from Cunningham, Kans., almost to Salina. H. Leone Miller is president, G. W. Crowell vice-president, and C. A. Slayton chief engineer at Salina, Kans.

Okla., Chickasha.—The Oklahoma Central Railway, it is reported, contemplates making extensive improvements. F. C. Hand is chief engineer at Purcell, Okla.

Okla., El Reno.—The Fort Smith & Western Railway, says a dispatch, will soon take out a charter in Oklahoma to build an extension from El Reno southwest to connect with the Kansas City, Mexico & Orient Railway near the Red River. W. M. Bushnell is general manager at Fort Smith, Ark.

Okla., Muskogee.—The Missouri, Kansas & Texas Railway, it is announced, proposes to lower its tracks through Muskogee. This will necessitate grade reduction. S. B. Fisher is chief engineer at St. Louis, Mo.

Okla., Oklahoma City.—The Western Power & Irrigation Co. of Oklahoma City has, it is reported, increased its capital stock from \$200,000 to \$500,000, and will build an electric railway from Cordell to Colony, Okla. C. T. Berryman is president and Geo. W. Fry secretary and treasurer.

Okla., Pawhuska.—A dispatch says that it is proposed to revise the line of the Missouri, Kansas & Texas Railway between Wynona

and Okesa. S. B. Fisher is chief engineer at St. Louis, Mo.

Okla., Tulsa.—Ketchum Bros. and A. Martin are reported to have been given grading contracts on the proposed Sand Springs Interurban Railway from Tulsa to Sand Springs, seven miles. Chas. Page is president and W. H. Hendron chief engineer.

S. C., Abbeville.—A movement is reported under way to build an electric railway from Abbeville to Antreville, 12 miles. Among those interested are W. N. Graydon, R. S. Link and E. C. Horton.

S. C., Ehrhardt.—The Hacker Manufacturing Co. of Charleston, with mills at Ehrhardt, S. C., writes: "We expect to expend some \$25,000 in building railroad, constructing sawmill, etc."

S. C., Greenville.—The Governor has approved the charter of the Piedmont & Northern Railway Co., under which Messrs. J. B. and B. N. Duke propose to build interurban lines in South Carolina, connecting them with lines projected in North Carolina. Ellison A. Smyth and others of Greenville, W. S. Lee of Charlotte, N. C., and others are interested.

Tenn., Dyersburg.—The Birmingham & Northwestern Railway Co., says a letter, will begin location about March 1 for its line from Dyersburg to Jackson, Tenn., preliminary lines having been run during the latter part of 1910. Soon after location construction will begin. Headquarters at Dyersburg, Tenn. Mike Harvey is chief engineer.

Tenn., Greeneville.—The Greeneville & Nolachucky Railway Co. has been chartered with \$100,000 capital to build the proposed line from a point two miles east of Greeneville, on the Southern Railway, to Walton, about 30 miles. The incorporators are John Heilman, Joseph B. Heilman, E. F. Layberger, W. W. Layberger and John G. Reading of Greeneville, Tenn.

Tenn., Greeneville.—The Greeneville & Nola Railway Co., capital \$100,000, is reported chartered. This may be the line previously reported projected by John Heilman and others from Greeneville via Runnel Gap to Walton, Tenn., 30 miles.

Tenn., Memphis.—The Frisco system, it is reported, has reached an agreement with the railroad committee of the Shelby County Court for the building of its new freight terminal and the construction of a line to it. F. G. Jonah is chief engineer of construction at St. Louis, Mo.

Tenn., Memphis.—The Illinois Central Railroad will build a new passenger station at Memphis, work to begin this spring. The track work, it is said, will cost \$100,000 or more. A. S. Baldwin is chief engineer at Chicago, Ill.

Tenn., Middleton.—President L. S. Berg of the New Orleans, Mobile & Chicago Railroad is quoted in a report from New Orleans as saying that construction of the contemplated extension north from Middleton to the Ohio River will soon begin. It will run to either Paducah, Ky., connecting with the Illinois Central, or to Evansville, Ind., connecting with the Frisco for Chicago. Another report is that the line may connect at Metropolis, Ill., with the Burlington route. W. F. Owen is vice-president and general manager at Mobile, Ala.

Tenn., Murfreesboro.—A movement is in progress to build an interurban railway from Murfreesboro to Nashville, about 30 miles. E. D. Hancock of Murfreesboro, R. L. Burch of Nashville and others are said to be interested.

Tenn., Nashville.—The Fidelity Investment Co. is reported being organized to promote interurban railways, power plants, etc., in the South. Capital \$200,000. Headquarters at Nashville. Among those interested are H. H. Mayberry, Paul Roberts, John A. Pitts, J. H. Carpenter, R. A. Bailey, Jr., George M. Ingram and F. M. Smith of Nashville; H. U. Wallace and E. F. Wheaton of Chicago, and others.

Tenn., Nashville.—Alex. Perry, one of the parties interested in the movement to build an electric railway from Greenwood Park to Hermitage, about eight miles, says that nothing definite has yet been decided.

Tex., Austin.—The Southern Pacific, it is reported, contemplates building a line from Giddings to Stone City or from Cameron to Bremond to make a shorter route between the Northern and Southern parts of Texas. E. B. Cushing is engineer of construction at Houston, Tex.

Tex., Fort Worth.—President R. S. Lovett of the Union Pacific and Southern Pacific railways, while in Fort Worth, was quoted as saying that the Houston & Texas Central Railroad would be extended north out of

Fort Worth, but that the work would not be done immediately. A report from Omaha, Neb., says that the Union Pacific is preparing to build an extension to Denison, Tex., to connect there with the Houston & Texas Central. Address, New York city.

Tex., Galveston.—The Peach River Lines, says a report, have prepared plans to build an extension from Milvick to Beaumont, which would require about 35 miles of new construction. C. S. Vidor is president and R. W. Luttrell chief engineer at Galveston, Tex.

Tex., Galveston.—An officer of the Frisco System says he has no knowledge of the Frisco being back of a plan to build a railroad from Port Arthur to iron ore fields in Cass county, Texas. This refers to a recent report.

Tex., Graham.—Charles E. McSweeney is reported visiting various towns in the western part of Texas seeking support for a plan to build a railroad to be known as the Fort Worth, Panhandle & Western, which will reach Graham, Throckmorton, Texico, Silvertown and other places. His address is Sweetwater, Tex.

Tex., Marshall.—An officer of the Marshall & East Texas Railway confirms report that \$5,000,000 of bonds have been authorized to improve the present line between Marshall and Willsboro and to make such extensions as may be decided. J. E. Votaw is general superintendent, and R. J. Lockwood, chief engineer.

Tex., Pleasanton.—Grading is reported resumed on the San Antonio, Rio Grande & Tampico Railroad. Grade is completed from Jourdan, Tex., to Hides, a distance of about 25 miles, and it is understood that contracts have been let for several miles of grade between Jourdan and San Antonio. J. F. Edwards is the promoter.

Tex., Rockland.—J. P. Terrell and others of Chicago will, it is reported, finance an extension of the Burr's Ferry, Brownell & Chester Railroad to Burkeville, Tex., 52 miles. J. H. Kirby of Houston, Tex., is president and general manager. A recent report said that it was rumored that the Frisco system was backing Mr. Terrell's railroad plans for a railroad from Port Arthur to iron-ore fields in Cass county.

Tex., Rusk.—A letter says that the Houston & Red River Railway Co. is promoted by Ed. Kennedy of Houston, Tex., and others of that city and New York to build a line from Houston via Timber, Oakhurst, Trinity and Kennard to Rusk, Tex., 150 miles.

Va., Norfolk.—Richard Armstrong of Hampton and others are reported as saying that they have secured strong backing for the proposed railroad from Norfolk direct to Washington, D. C., and that the line will doubtless be built.

W. Va., Fairmont.—Subcontracts are reported let for grading on the Buckhannon & Northern Railroad thus: G. S. Fogel & Co. of St. Albans, W. Va., the first five miles from the State boundary southward; Zevinsky & Co. of Morgantown, W. Va., the second five miles; the Pennsylvania Contracting Co. of Pittsburg, Pa., the next 15 miles; Marshall Sale & Co. of Roanoke, Va., five miles. Others reported to have received subcontracts are Flynn Bros., Weaver & Gilmore and R. T. Martin. Patterson, Moran & Luck are the general contractors, with office, it is reported, at Morgantown, W. Va.

W. Va., Harrisville.—J. B. Westfall, who was recently reported to have purchased the unfinished line of the Harrisville and Cornwalls Railroad, writes that it will be completed this year. The route is through rough country from Harrisville to Cornwalls, six miles, and requires two bridges. Connection will be made with the Baltimore & Ohio Railroad.

W. Va., Mullens.—An officer of the Virginian Railway writes that it is not the intention of the company to extend the Guyan Valley line to Huntington at this time. This denies a recent report.

STREET RAILWAYS

Ala., Birmingham.—The Elmwood Corporation, says a report, is having survey and estimates made for a contemplated streetcar line to Elmwood Cemetery. Walter Puckett is manager.

Ga., Albany.—Among those interested in the proposed street railway, it is reported, are S. B. Brown, W. W. Pace, F. F. Putney, C. W. Rawson, J. K. Pray and others of Albany.

Ga., Macon.—The Macon Railway & Light Co. has applied for the privilege of building new track on half a dozen streets for an extension.

Ky., Newport.—The Northern Kentucky

Street Railway Co., it is reported, has applied for charter to build in Newport; capital \$10,000. J. M. Dawson, Edward F. Kelly and Gwynne Dennis are the incorporators.

Ky., Paducah.—The Paducah Traction Co., says a report, is considering a plan to extend its line to Mechanicsburg, which will require a bridge over Island Creek.

Mo., Kansas City.—R. J. Dunham, chairman of the board of the Metropolitan Street Railway Co., is quoted as saying that it is contemplated to spend \$1,000,000 in the next year for extensions, equipment, machinery, etc.

Tenn., Bristol.—The Bristol Belt Line is about to make an extension to Virginia Park, it is reported, and other extensions are under consideration, besides the electrification and changing of gauge of the Holston Valley Railway from Bristol to Big Creek Park, 10 miles.

Tenn., Memphis.—The Memphis & Rugby Railway Co. has applied for charter to build a street railway from Chelsea avenue to

Rugby, a new suburb. Among those interested are E. H. Coapman, vice-president and general manager Southern Railway, Washington, D. C.; Charles T. Doerr, purchasing agent Birmingham Street Railway Co.; Henry Wetter, president H. Wetter Manufacturing Co.; Luke Seawell, secretary and treasurer of the Weddington Hardware Co., Charlotte, N. C.; James H. Malone, and W. J. Francis, president of the Rugby Estates Land Co.

Tex., San Antonio.—An officer of the San Antonio Traction Co. writes that the company expects to do a good deal of double tracking with the company's forces. There will not be any contracts.

Tex., San Antonio.—A. D. Powers writes that he owns the San Antonio-San Jose Interurban Railway Co., and will build a five-mile line from San Antonio to San Jose. Connection will be made with the San Antonio Traction Co. No bids. J. D. Powers is superintendent of construction, and G. W. Nock, chief engineer.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Aluminum Checks.—Armona F. and T. G. Association, J. W. Dudley, secretary, Maryville, Tenn., wants samples and prices on small, round, aluminum checks containing numbers 1, 2, 4, 25 and 100 (for berry pickers).

Automobiles.—Sawyer Auto Livery, C. H. Sawyer, president and manager, 201 Perry St., Savannah, Ga., wants second-hand Packard automobiles.

Bottling Machinery.—F. La Spitzer, Brunswick, Md., wants addresses of manufacturers of bottles, crates, carbonators and crowning machines for soft-drink bottling.

Bookcase Parts.—Isthmian Canal Commission, Purchasing Department, Washington, D. C., File C. Z. 835-D. Sealed proposals will be received at this office until February 27 for furnishing bookcase parts as follows: 15 sections, 30 tops and 3 bases, to be of cedar or mahogany. F. C. Boggs, Captain, Corps of Engineers, U. S. Army, General Purchasing Officer.

Bollers.—Forrester-Nace Box Co., B. E. Nace, secretary, 24th and Penn Sts., Kansas City, Mo., wants prices on bollers.

Brick Machinery.—Carlos J. Acosta, Lope Recio 33, Camaguey, Cuba, wants prices on machinery to manufacture tile and cement brick.

Bridge Construction.—W. F. Muller, Richland County Supervisor, Columbia, S. C., will receive bids until noon March 6 for construction of reinforced concrete bridge across Mill Creek on Gardner's Ferry Rd.; plans and specifications on file in office of County Supervisor; W. C. Thomas, clerk of County.

Building Materials, etc.—Leo L. Oberwarth, Frankfort, Ky., wants prices on composition, tile and hardwood floors, art and plate glass, sanitary plumbing, wood work, electric wiring, telephones, skylights, structural-iron work, decorating and painting, etc.

Building Materials.—J. Andrew Cohill, Hancock, Md., will want prices on building materials.

Building Materials, etc.—Realty Construction Co., 2024 Third Ave., Birmingham, Ala., wants catalogues, prices, etc., from manufacturers of building materials; staple or specialties.

Building Materials.—W. B. McGanty, Belton, Tex., wants prices on building materials.

Building Materials.—P. L. Downs, Temple, Tex., wants prices on building materials for \$25,000 mercantile and lodge building.

Building Material, etc.—Sealed proposals will be received at office of lighthouse inspector, New Orleans, La., until 12 M. April 5, and then opened, for furnishing building material, hardware, paints, oils, glass, cisterns, gutter pipe, coal and lumber at New Orleans, in accordance with specifications, copies of which, with blank proposals and other information, may be had on application to inspector.

Building Material, etc.—Sealed proposals will be received at office of lighthouse inspector, Key West, Fla., until 12 M. April 5, and then opened, for furnishing building material, hardware, paints, oils, glass, cisterns, gutter pipe and lumber at Miami, Fla., in

accordance with specifications, copies of which, with blank proposals and other information, may be had on application to inspector.

Cable.—Isthmian Canal Commission, Purchasing Department, Washington, D. C. Sealed proposals will be received at this office until February 27 for furnishing 600 feet No. 60 B. & S. gauge, triple-conductor, lead-covered and wire-armored cable. Interested parties should refer to C. Z. 5943-A and address F. C. Boggs, Captain, Corps of Engineers, U. S. Army, General Purchasing Officer.

Canning Machinery.—Vance-Eller Company, James L. Vance, president, Box 179, Marion, Va., wants addresses of manufacturers of machinery for canning kraut.

Canning and Packing Supplies.—Providence Forge Packing Corporation, Richmond, Va., will need supplies necessary for salting and packing herrings, canning roe, etc.

Cars.—San Antonio Traction Co., W. B. Tuttle, vice-president, 305 E. Houston St., San Antonio, Tex., will purchase 10 new cars.

Cars.—Jos. E. Bowen, 901 Bank of Commerce Bldg., Norfolk, Va., wants three standard-gauge 36 to 40-foot long flat cars, equipped with airbrakes and automatic couplers; immediate shipment; pass M. C. B. inspection.

Cars.—Straight Creek Coal Mining Co., Cary, Ky., wants prices and cuts on side-dump cars, gauge 44 inches, to hold 3000 to 3000 pounds.

Church Furniture.—W. B. McGanty, Belton, Tex., wants prices on furniture for \$15,000 Sunday-school addition.

Cement.—Carlos J. Acosta, Lope Recio 33, Camaguey, Cuba, wants prices on cement for making bricks.

Cement.—J. S. Heatwole Company, Harrisonburg, Va., wants prices on cement in carloads.

Cigarette Machinery.—Americann Type Founders Co., 1329 E. Franklin St., Richmond, Va., wants (for client) information and prices on equipment for cigarette factory, including cigarette-making machine, tobacco cutter, knife and grinding machine, steaming pan, cigarette roaster, boxmaking machine, etc.

Concrete-block Machinery, etc.—Stoere Home Construction Co., Shreveport, La., wants addresses of manufacturers of or dealers in machinery and molds for making concrete blocks and cement brick.

Crusher.—Monarch Lime & Stone Co., Hooker, Ga., wants prices on stone crusher.

Electrical Equipment.—Forrester-Nace Box Co., B. E. Nace, secretary, 24th and Penn Sts., Kansas City, Mo., wants prices on electrical equipment.

Crusher.—O. R. Whitney, 39-41 Cortlandt St., New York, wants No. 9 second-hand crusher (gyratory preferred); prompt delivery; give full particulars.

Electric Elevator.—Dallas County Commissioners, Dallas, Tex., will receive bids until 10 A. M. March 6 for installation of electric

elevator in County Courthouse; certified check for sum equal to 25 per cent. of amount of bid to accompany each proposal; George L. Fearn, County Auditor.

Electrical Equipment.—P. L. Downs, Temple, Tex., wants prices on electrical fixtures for mercantile and lodge building.

Electrical Machinery.—See "Mining Machinery."

Electrical Equipment.—J. Andrew Cohill, Hancock, Md., wants prices on motor and storage battery for 25 lights.

Electrical Machinery.—See "Knitting Machinery."

Electrical Machinery.—Williams & Shock, 223 N. Calvert St., Baltimore, Md., want 50 or 75 K. W. direct-connected generator set, direct current, 220 volts; boiler pressure is 80 to 100 pounds.

Electric Motor.—See "Pump, etc."

Elevator.—H. J. Cohn, Dallas, Tex., wants prices on 10x20 freight elevator, 4500 to 5000 pounds capacity.

Elevators.—John J. Stump, Cumberland, Md., wants prices on hand-power elevators. Engines.—Forrester-Nace Box Co., B. E. Nace, secretary, 24th and Penn Sts., Kansas City, Mo., wants prices on engines.

Fencing.—J. B. Moore, Tahlequah, Okla., wants information and prices (for Tahlequah Scientific and Educational Game and Fish Association) on suitable fencing for 5000 to 6000 acres; for retention of elk, deer, etc.

Fire-escapes.—People's Trust Co., Rock Hill, S. C., wants fire-escapes.

Fire Extinguishers.—People's Trust Co., Rock Hill, S. C., wants fire extinguishers.

Flooring.—Harrisburg Lumber Co., Harrisburg, Ark., wants addresses of manufacturers of maple flooring (near Charlotte, N. C. preferred).

Galvanized Ties, etc.—Newton Coal & Lumber Co., Griffin, Ga., wants prices on galvanized wall ties and plugs.

Gasoline Engines.—J. Andrew Cohill, Hancock, Md., wants prices on gasoline engines. (See "Pumps," etc.)

Gasoline Motors.—Straight Creek Coal Mining Co., Cary, Ky., wants cuts and prices on gasoline motors.

Grinding Machinery.—Joseph Ash, Statesville, N. C., wants machinery for grinding unpeeled peaches and prunes for tobacco flavoring; also for grinding St. John's bread (carob bean).

Hardware.—W. G. Post, Newnan, Ga., wants prices on hardware.

Heating Plant.—R. N. Cole, Newnan, Ga., wants prices on steam heating plant for \$8000 dwelling.

Heating Plant.—W. G. Post, Newnan, Ga., wants prices on heating plant for \$6500 dwelling.

Ice Machinery.—Stone Construction Co., Welch Bldg., Clinton, Okla., wants information and prices on equipment for 10-ton ice plant.

Iron Fence.—War Department, Office of Commissioner for Marking Graves of Confederate Dead, Washington, D. C. Sealed proposals, in duplicate, will be received at this office until 11 A. M. March 21, and then opened, for furnishing approximately 831 linear feet of wrought-iron fence and erecting same around Point Lookout Confederate Cemetery, near Cordfield Harbor, St. Mary's county, Maryland. Proposals must be placed in sealed envelopes, address on outside "Proposals for Point Lookout Fence, to be Opened March 21, 1911," and addressed to Commissioner for Marking Graves of Confederate Dead, War Department, 410 Lemon Bldg., Washington, D. C. James H. Berry, Commissioner.

Jacks.—Isthmian Canal Commission, Purchasing Department, Washington, D. C. Sealed proposals will be received at this office until February 25 under C. Z. 1607-C for furnishing four jacks, double action, 15-ton. F. C. Boggs, Captain, Corps of Engineers, U. S. Army, General Purchasing Officer.

Jetties Construction.—U. S. Engineer Office, Room 255 Custom-house, New Orleans, La. Sealed proposals for extending jetties at Southwest Pass, Mississippi River, will be received at this office until 11 A. M. March 17, and then publicly opened. Information on application. Lansing H. Bench, Lieutenant-Colonel, Engineers.

Knitting Machinery.—W. G. Flake, Conyers, Ga., wants data and prices on knitting machinery; electrically driven.

Labels.—See "Paint Machinery, etc."

Lathe.—Sawyer Auto Livery, C. H. Sawyer, president and manager, 201 Perry St., Savannah, Ga., wants prices on second-hand 16-inch engine lathe.

Laundry Machinery.—D. E. Peeper, Fort Lauderdale, Fla., wants to correspond with manufacturers of steam-laundry machinery.

Lighting Fixtures.—City Council, R. L. Beare, chairman of committee, Jackson, Tenn., is interested in ornamental street-lighting fixtures for business section.

Lighting Fixtures.—John J. Stump & Co., Cumberland, Md., wants prices on gas and electric fixtures.

Light Fixtures.—Treasury Department, Office of Supervising Architect, Washington, D. C. Sealed proposals will be received until 3 P. M. March 21, and then opened, for supplying and installing lighting fixtures in United States buildings at Alken, S. C.; Cleveland, Tenn.; Concord, N. C.; Griffin, Ga.; High Point, N. C.; Newnan, Ga.; Rome, Ga.; Catlettsburg, Ky.; Danville, Va., and Frankfort, Ky., in accordance with drawings and specifications, copies of which may be obtained at this office at discretion of supervising architect; the right is reserved to reject any and all bids and to waive defects; each proposal must be accompanied by certified check in sum of 2 per cent. of aggregate amount thereof, drawn to order of Treasurer of United States, as guarantee of good faith; proposals should be addressed to Supervising Architect, Treasury Department, Washington, D. C., and envelope endorsed "Proposal for Lighting Fixtures, United States Buildings at Alken, S. C.; Cleveland, Tenn.; Concord, N. C.; Griffin, Ga.; High Point, N. C.; Newnan, Ga.; Rome, Ga.; Catlettsburg, Ky.; Danville, Va., and Frankfort, Ky.; James Knox Taylor, supervising architect.

Locomotive.—Geo. J. Adams, 39 South St., New York, wants 35 or 40-ton locomotive or switching engine.

Locomotives.—Pennsylvania Equipment Co., 301 West End Trust Bldg., Broad St. and S. Penn Sq., Philadelphia, Pa., wants six-wheel connected switching engine; cylinders 20 inches in diameter by 24 or 24-inch stroke, 44-inch wheel centers, 120,000 pounds on drivers, wheel base not to exceed 11 feet; 180 pounds steam pressure; sloping tender; water capacity 4000 gallons; fuel 9 tons; double sand boxes on boiler; 9½-inch Westinghouse pump; give full particulars.

Loom.—Vernon L. Clark, president of Incorporating Co. of Arizona, Phoenix, Ariz., wants addresses of (rag) carpet loom manufacturers; hand or electric power.

Lumber.—J. S. Heatwole Company, Harrisonburg, Va., wants prices on dressed lumber; also framing lumber in carloads.

Machine Tools.—See "Sheet-metal Machinery, etc."

Machine Tools.—G. E. Starkweather, Box 180, Tampico, Tams, Mexico, wants prices on lathe, drill press, shaper, planer and grindstone.

Machine Tools.—Modern Ice Machine Co., W. G. Roloff, president, 504 Moore Bldg., San Antonio, Tex., wants prices and catalogues on all kinds of machine tools, including automatic lathe, drill press, shaper, grinders, etc.; catalogues without prices and discounts will not be considered.

Mantels.—R. N. Cole, Newnan, Ga., wants prices on mantels for \$8000 dwelling.

Mantels.—W. G. Post, Newnan, Ga., wants prices on mantels for \$6500 dwelling.

Marble.—Newton Coal & Lumber Co., Griffin, Ga., wants prices on marble for base and toilets.

Metal Lath.—Newton Coal & Lumber Co., Griffin, Ga., wants prices on metal lath.

Mining Machinery.—Darby Coal Mining Co., C. H. Thompson, manager, Knoxville, Tenn., will let contract about May 1 for mining machinery, including direct current generators and D. C. motors for haulage; also pump for washer and machine shop.

Naval Supplies.—Proposals will be received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. February 28, and publicly opened immediately thereafter, to furnish at Navy-yard, Washington, quantity of naval supplies, as follows: Schedule 332, alcohol, sodium nitrate; schedule 333, hardware and tools; schedule 334, steel forgings, shields, tires for electric truck. Applications for proposals should designate schedules desired by number. Blank proposals furnish on application to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Oil-burning Equipment.—Town of Houma, La., Dreux Angers, Clerk, wants bids on oil-burning equipment for two 60-inch by 16-foot return-tubular boilers, marine setting, to consist of following: two oil pumps; one oil heater; oil burners and fittings for two boilers; one pressure relief valve (size of pump discharge); one iron tank about 5x5 feet, with manhole and flanges on side;

also following pipe and fittings for oil-pipe line: 240 feet 4-inch wrought-iron pipe, with couplings; six 4-inch ells; six 4-inch 45-foot ells; three 4-inch tees; two 4-inch Dart flanges; four 4-inch iron-body gate valves; two 4-inch pipe plugs; terms cash, f. o. b. cars Houma; bids received up to 7.30 P. M. on March 7.

Paint Machinery, etc.—Atlantic Paint and Varnish Works, Wilmington, N. C., wants prices on paint mixing and grinding machinery; also various-sized labels.

Paint.—Harrisburg Lumber Co., Harrisburg, Ark., wants addresses of manufacturers of paint.

Paving.—V. M. Brindley, Collinsville, Ala., will receive bids until 5 P. M. March 4 for construction of about 900 yards of cement sidewalks; plans and specifications on file in Mr. Brindley's office.

Paving.—Bob Parman, City Clerk, Oklahoma City, Okla., will receive bids until 5 P. M. March 6 for paving with sheet asphalt, grading and otherwise improving Lindsay Ave., Wheeler St., intersection of Bath Ave. and 12th St., 7th St., 31st St., 17th and 18th Sts., etc.; concrete curb and gutter; plans and specifications on file in office of City Clerk; certified check, 3 per cent. of bid. (Date of opening bids postponed from February 27, as lately stated.)

Paving.—Board of Public Works, D. B. McKay, chairman, Tampa, Fla., will receive bids until 2 P. M. March 7 for constructing sheet-cement sidewalks; Allen Thomas, clerk.

Paving.—J. B. Winslett, City Secretary, Dallas, Tex., will receive separate bids until 3 P. M. March 6 for paving portions of Pennsylvania and Ross Aves., Bryan, Pearl, Worth, Walton and Austin Sts.; each bidder to bid separately on following materials: Bitulithic, creosoted pine blocks, vitrified brick paving blocks, rock asphalt, asphaltic concrete, concrete curbs, concrete gutters and combination concrete curb and gutter; each bidder to bid according to terms of specifications and separately bid as provided by specifications; specifications on file in office of City Secretary.

Paving.—J. B. Winslett, City Secretary, Dallas, Tex., will receive bids until 3 P. M. March 1 for construction of improvements on Jefferson St. from 10th to Tyler St.; each bidder to bid separately on the following materials: Asphaltic macadam pavement, concrete curb, concrete gutter, combination concrete curb and gutter; each bidder to bid according to terms of specifications; certified check, \$500.

Pier Construction.—Owen Burns, Sarasota, Fla., is receiving bids for construction of pier and bulkhead; cement and wood; cost about \$10,000.

Piping.—See "Oil-burning Equipment."

Plaster.—J. S. Heatwole Company, Harrisonburg, Va., wants prices on plaster in carloads.

Plumbing.—P. L. Downs, Temple, Tex., wants prices on plumbing for mercantile and lodge building.

Pulverizing Machinery.—Savannah Stone Co., Savannah, Mo., will soon want pulverizing machinery.

Pump.—See "Mining Machinery."

Pump.—United Fuel Economizer Co., 538 Real Estate Trust Bldg., Philadelphia, Pa., wants to correspond with pump manufacturers with view to agency.

Pumps, etc.—J. Andrew Cobill, Hancock, Md., wants prices on pumps to force water 200 feet; elevation 200 feet; also gasoline engines.

Pumps.—Forrester-Nace Box Co., B. E. Nace, secretary, 24th and Penn Sts., Kansas City, Mo., wants prices on pumps.

Pump, etc.—Inverness Mill Co., Winston-Salem, N. C., wants new or second-hand 550 alternating-volt direct-connected triplex pump and electric motor to pump 10 gallons (or more) per minute a distance of 1200 feet to elevation of 100 feet, using one-inch pipe; quote delivered price and state delivery.

Pumping Engine.—Office of Constructing Quartermaster, Fort Sam Houston, Tex. Sealed proposals, in triplicate, will be received here until 11 A. M. March 21, and then opened, for furnishing and installing, complete and in working order, one compound or triple-expansion pumping engine, capacity 1,000,000 gallons in 24 hours. United States reserves right to reject any or all bids. Specifications furnished on application. Bidders must state name of manufacturer of machinery they propose to install. Envelopes containing sealed proposals should be marked "Proposals for Pumping Engine, Fort Sam Houston, Tex.," and addressed to P. W. Guiney, Constructing Quartermaster.

Rails.—C. R. Jordan, Gulf, N. C., wants light track (20 to 30 pounds) for tramroad.

Revolving Doors.—Newton Coal & Lumber

Co., Griffin, Ga., wants prices on revolving doors.

Road Construction.—Bids will be received at office of Bexar County Auditor, San Antonio, Tex., until 11 A. M. March 7 for laying about 1½ miles on Gollad Rd. between Elmendorf and Saspanco; specifications on file in office of County Auditor; Thos. E. Ramsey, County Auditor.

Road Improvement.—George L. Fearn, auditor of Dallas county, Dallas, Tex., will receive bids until 10 A. M. March 4 for grading and graveling portion of Dallas and Hutchins Rd. and until same date for improving another portion of same road for distance of 400 feet; certified check 5 per cent. of bid.

Road Work.—Fort Monroe, Va., February 20, 1911. Sealed proposals, in triplicate, will be received until 10 A. M. March 21 for constructing concrete walks, macadam roads, etc., around new buildings at Fort Monroe, Va. Information on application. United States reserves right to accept or reject any or all bids or any part thereof. R. B. McBride, Captain and Quartermaster, U. S. Army, Constructing Quartermaster.

Sawmill Machinery.—C. R. Jordan, Gulf, N. C., wants sawmill outfit and drykilns.

Sawmill Machinery, etc.—William Stenson & Son, Daytona, Fla., wants prices on saw and planing mill machinery and supplies.

Screens and Screenings.—Office of Quartermaster, Fort Screven, Ga. Sealed proposals will be received at this office until March 6 for furnishing door and window screens for various buildings; also for furnishing about 100 feet copper wire screening. Proposals must be signed by bidder, enclosed in sealed envelope, addressed to undersigned and marked "Proposals for Screens, etc., to be Opened March 6, 1911." L. C. Brinton, Jr., First Lieutenant, Coast Artillery Corps, Quartermaster.

Paving.—Sealed proposals, directed to Board of Public Works, Chattanooga, Tenn., will be received until 2.30 P. M. March 7 for paving certain portions of Willow, Beech, Vine and Oak Sts., and Orchard Knob Ave., designated as "Group 1," and certain portions of W. 4th, 10th, E. Terrace and 13th Sts., designated as "Group 2." separate proposals being submitted for each group of streets. Plans, profiles and specifications may be examined in City Engineer's office, and a set of specifications for each group, with blank form for proposal, contract and bond, will be given to contractors on application, accompanied by deposit of \$10, or certified check for similar amount, which cash deposit or check will be returned on submission by applicant of bid in regular form; certified check for \$300 to accompany bid for each group of streets; checks to be made payable to J. M. Payne, City Treasurer; specifications call for bids for asphalt, macadam, concrete, vitrified brick and sheet asphalt pavements; H. S. Van Dusen, chairman of Board.

Sewer Construction.—Oscar B. Bonar, City Clerk, Moundsville, W. Va., will receive bids until 10 A. M. March 21 for furnishing material and laying complete, including trenching, back-filling, etc., 26 miles of sewers, varying in size from 6-inch to 36-inch diameter, together with 430 manholes, 6 lamp-holes, 8 flush tanks, 115 inlets and catch-basins and 22 tons of cast-iron pipe; bids will be received for both vitrified pipe and monolithic concrete for all sewers 24 inches in diameter and larger; depth of trenches vary from 5 to 32 feet; specifications, instruction to bidders and blank forms of bidding sheets may be obtained, and plans and profiles may be seen at office of Oscar B. Bonar, City Clerk, Moundsville, or at office of Charles E. Collins, consulting engineer, Drexel Bldg., Philadelphia, Pa.; certified check, \$1000; J. M. Williamson, Mayor.

Sewer Construction.—Baltimore (Md.) Board of Awards will receive bids at office of J. Sewell Thomas, City Register, City Hall, until 11 A. M. March 15 for construction of storm-water drains, Storm-Water Contract No. 12, as shown on plans on file in office of Calvin W. Hendrick, chief engineer Sewerage Commission; specifications and plans can be obtained on application at office of Sewerage Commission, 64 American Bldg.; charge of \$5 for each specification and blueprints; certified check, \$3000. Approximate quantities: 1270 feet 87-inch horseshoe drain; 460 feet 14-foot by 7-foot 6-inch rectangular drain; 28 feet 96-inch horseshoe drain; 1640 feet 36-inch to 30-inch concrete and brick drains; 4100 feet 24-inch to 15-inch T. C. pipe drains; 1699 feet inlet connections; 71 inlets; 36 manholes; 2875 cubic yards concrete; 230 cubic yards brick masonry; 110,000 pounds steel reinforcements; W. D. Platt, chairman pro tem. of Sewerage Commission; Harry W. Rodgers, secretary.

Sewer Construction.—D. L. Wilson, City Secretary, Cameron, Tex., will receive bids until March 15 for construction of sewer system; certified check, 10 per cent. of bid; plans and specifications on file with City Secretary.

Sheet-metal Machinery, etc.—Severance Manufacturing Co., 302 Church St., Nashville, Tenn., will equip factories with machine tools and sheet metal-working machinery for manufacture of hardware specialties.

Standpipe.—J. B. Winslett, City Secretary, Dallas, Tex., will receive bids until 3 P. M. March 3 for erection of standpipe about three and a half miles northeast of city on line of 36-inch pipe leading to White Rock pumping station; plans and specifications on file in office of Mr. Winslett; certified check, 2 per cent. of bid.

Steel Building.—M. K. Frank, Frick Bldg., Pittsburgh, Pa., wants 60x140-foot steel building; 44 feet high or higher; immediate shipment.

Steel Construction.—San Antonio Gas & Electric Co., W. B. Tuttle, vice-president, San Antonio, Tex., will require about 44,128 pounds of steel for reconstruction of Villita St. power-house.

Stone.—Mississippi River Commission, first and second districts, U. S. Engineer Office, Room 20 Custom-house, Memphis, Tenn. Sealed proposals for furnishing 40,000 cubic yards of rip-rap stone, delivered on Government barges and on contractors' barges, will be received at office until noon March 22, and then publicly opened. Information on application. Clarke S. Smith, Captain, Engineers.

Store Furniture.—John J. Stump & Co., Cumberland, Md., wants prices on wall and floor cases, counters and fixtures.

Syrup Mills.—Dr. Thos. W. Gunter, Paxville, S. C., wants to correspond with manufacturers of or dealers in sugar-cane syrup mills.

Tanks.—Office of Commissioners of District of Columbia, Washington, D. C. Sealed proposals will be received at this office until 2 P. M. February 27 for furnishing and erecting complete five horizontal oil tanks and connections. Forms of proposals, specifications and necessary information may be obtained from Chief Clerk, Engineer Department, Room 427 District Building. Cuno H. Rudolph, John A. Johnston, William V. Judson, Commissioners, D. C.

Vending Machine.—L. S. Fowler, Georgia Normal and Industrial College, Milledgeville, Ga., wants information and prices on stamp-vending machine.

Wagons.—Washington Barracks, D. C. Sealed proposals for furnishing 38 chess wagons, 4 tool wagons and 10 pontoon wagons will be received here until 12 M. March 20, and then publicly opened. Information furnished on application. W. J. Barden, Major, Engineers.

INDUSTRIAL NEWS OF INTEREST

Hardware Business for Sale.

The controlling interest in a wholesale hardware business in Virginia is offered for sale. Correspondence addressed to "Hardware," care of Manufacturers Record, will be forwarded.

Limestone Quarry Offered.

A limestone quarry and crusher plant is offered for sale by the owners. All or a part interest will be sold. For particulars address "C. P. R.," care of Manufacturers Record.

Wants Agency for Pump.

The United Fuel Economizer Co., 538 Real Estate Trust Bldg., Philadelphia, is desirous of securing the selling agency for a pump similar to the Davidson pump manufactured in Brooklyn. Prompt correspondence is invited.

Contract for Electrical Equipment.

The Carolina Electrical Co., 110 Fayetteville St., Raleigh, N. C., has secured a contract to supply electrical equipment for the Y. M. C. A. Building at Greensboro, N. C. This includes electric-light, power, bell and telephone equipment.

Weber Conform Chimney.

Among the reinforced concrete chimneys recently constructed by the Weber Chimney Co. of 209 State St., Chicago, is the Weber conform chimney for the North State Lumber Co. of Charleston, S. C. This chimney is 100 feet high and its inside diameter is 5 feet.

For Brick and Tile Making.

A position as manager of a brick or tile plant (Southern preferred) is wanted by a

Water System.—City of Electra, Tex., wants to correspond with contractors relative to installation of water system; S. Walker may be addressed.

Water-works Materials, etc.—Bids will be received by Mayor and City Council, San Augustine, Tex., and publicly opened March 21, for purchase of all material for construction of water-works system, viz.: Electric motor or gasoline engine, triplex pump and steam pumps, boilers, heater, pipe, valves and hydrants, tank and tower; also for drilling of deep well; quantities and specifications obtainable on application to O'Neil Engineering Co., constructing and supervising engineer, 1503 Praetorian Bldg., Dallas, Tex.

Water-works.—City Council and Mayor H. C. McHure, Jacksboro, Tex., will receive bids until March 15 for furnishing material and construction of water-works; will require 400 tons of 6-inch and 8-inch diameter cast-iron water pipe, 8 tons special castings, 5 8-inch and 15 6-inch gate valves, 20 hydrants, laying of four miles of 6-inch and 8-inch diameter pipe, 75,000-gallon elevated water tower, 50,000-gallon reinforced concrete reservoir, 2 80-horse-power horizontal tubular boilers with feed-water heater and pump, 500 gallons per minute capacity duplex compound pump, 100 cubic feet per minute capacity air compressor and pumping station; form of proposal may be obtained from City Secretary; plans and specifications, form of contracts and bond with instructions to bidders may be seen at office of City Secretary or at office of N. Werenskiold, civil engineer, Dallas, Tex.; certified check for not less than 2 per cent. of amount of bid must accompany each proposal.

Windlass.—Proposals will be received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. March 7, and publicly opened immediately thereafter, to furnish at navy-yard, Charleston, S. C., a steam brake windlass; applications for proposals should refer to schedule 354; blank proposals furnished on application to Navy Pay Office, Charleston, or to bureau; T. J. Cowie, Paymaster-General, U. S. N.

Well Drilling.—See "Water-works Materials, etc."

Well-drilling Machinery.—O. H. de Lamorton, Pascagoula, Miss., wants prices on oil-well drilling machinery.

Woodworking Machinery.—O. H. de Lamorton, Pascagoula, Miss., wants prices on woodworking machinery.

Woodworking Machinery.—Vidalia Coffin & Casket Co., Vidalia, Ga., will purchase machinery to manufacture caskets and coffins.

Woodworking Machinery.—A. J. Baldwin & Co., 102 Main St., Dawson, Ga., wants prices on new and second-hand chain-mortising machines; also on second-hand sander.

A Well-Known Lubricant.

The Albany Lubricating Co. (Adam Cook's Sons, proprietors) has removed to its new factory buildings at 700-710 Washington St., New York. In this structure the company will have increased facilities to meet the demands for its "Albany Grease," the well-known lubricant that has been so generally used during the past 42 years.

H. B. Smith Machines.

The H. B. Smith Machine Co. of Smithville, N. J., announces that it has made a change in its representation in the middle Southwest. This change announces L. D. Jones as prepared to sell the company's woodworking machines in Western Tennessee, Mississippi, Louisiana, Eastern Texas, Oklahoma and Arkansas. Mr. Jones will establish headquarters at Shreveport, La.

Moffatt Elevator Installations.

A brisk demand for elevators is reported by the Moffatt Machinery Manufacturing Co. of Charlotte, N. C. The company is now installing an elevator in the new Gresham Hotel at Spartanburg, S. C., and has installed high-speed electric passenger elevators for the Greenwood Hardware Co. and Grier & Park of Greenwood, S. C.; W. I. Henderson of Charlotte, and a new hotel at Tybee, Ga.

Appoints New Officers.

The Plymouth Cordage Company, North Plymouth, Mass., announces the appoint-

ment of B. Preston Clark as vice-president of the company and Francis C. Holmes treasurer. The Plymouth company is one of the most important firms in the United States manufacturing rope of various kinds for the transmission of power, well drilling, special and other purposes.

M. E. Grey's New York Office.

M. E. Grey of Asheville, N. C., consulting engineer and timber expert, has established an office at No. 30 Church St., New York, where he will spend part of his time each month. This action by Mr. Grey is the result of his increased clientele in New York city, which has forced upon him the necessity of being in New York part of each month in connection with the various timber interests and timber owners with whom he is associated.

George B. Adair & Son Company.

George H. Adair, who has been manager of the Fairbanks, Morse & Co. Seattle branch since it was established (five years ago), has severed his connection with that company. He and his father and associates have purchased the Kilbourne & Clark Company and will continue as the George B. Adair & Son Company. It is interesting to note that the Adair company will sell the gas engines built by the Foss Gas Engine Co. of Springfield, O.

Bertsch & Co.'s Large Trade.

Bertsch & Co., Cambridge City, Ind., manufacturers of a general line of punches, metal workers' supplies, tinners' tools, presses, etc., handled a very large volume of trade during the past year. They have made a few changes and some improvements in their standard line of machines and have been able to secure such orders that their plant has not only been working full time, but for a greater part of the time a night force has also been employed.

Scientific Firing Results.

The Thomas Grate Bar Co. of Birmingham has issued an information card dealing with "scientific firing results." The proper method of firing for economical results is explained, the tools to use and to let alone are described, and the advantages of using the Thomas elliptic grate bar are stated. The point is made that this grate bar sheds ashes automatically, and slag clinker matter rolls off the curved bars in its molten state, thus keeping the draft spaces open, with consequent higher steam supply with the amount of coal consumed.

Fire Hydrants, Valves and Water-Works.

The Bourbon Copper and Brass Works Co., Cincinnati, O., was established in 1830. It is still a vigorous, aggressive company, as shown by the fact that its trade during February was better than that of any four months in 1910. Other important business is in sight, making prospects of future orders equally good. The company manufactures fire hydrants, valves and water-works and fire-department supplies. Its president is Thomas Ford, who has been actively interested in the company for more than 40 years.

Webster Manufacturing Co.

The Webster Manufacturing Co., Chicago, which has operated a branch factory at Tiffin, O., for three years, will move its entire Chicago manufacturing plant to that city. The company is now erecting buildings in Tiffin which will give it an area of four acres under roof for taking care of its steadily-growing trade. This will give the company a very extensively equipped plant, which in every respect will be strictly modern in regard to special machinery for manufacturing and shipping its own products. A sales office will be maintained in Chicago.

Important Contracts for Bricks.

That Southern brick-manufacturing plants are prepared to handle contracts of considerable extent is indicated by contracts which the Carson Brick Co. of Charlotte, N. C., has recently closed. This company will furnish all the bricks needed in the construction of the buildings for the Westervelt Mills of Greenville, S. C., a million-dollar cotton factory to be erected in that city. The contract provides for approximately 4,000,000 bricks. The Carson Brick Co. has also closed contracts to furnish bricks for the erection of a passenger station at Chester, S. C., for the Southern Railway and for Young's steam bakery at Charlotte.

Appointed Manager at Omaha.

M. S. Allen, who has been in charge of the telephone sales department of the Western Electric Co.'s Atlanta branch for three years, has been appointed manager of the Omaha branch of the same company. Mr.

Allen was connected with the Rocky Mountain Bell Telephone Co. for 10 years, entering the employ of the Western Electric Co. as manager of its Salt Lake City branch in 1905. A year later he became manager of the San Francisco branch, from which he was transferred to Atlanta in 1908. While in the South Mr. Allen has been closely identified with the enormous spread of the rural telephone movement in that section. The Western Electric Co.'s New York office is at 463 West St.

Otto Crude Oil Engines.

The fact that the parent house in Germany of the Otto Gas Engine Works of Philadelphia has been building crude-oil engines for years, and is said to have developed a very successful engine of this type, will relieve that company of the necessity of making lengthy and costly experiments when it begins the construction in this country of the proposed crude-oil engine. It is expected to build a new factory, but the time has not yet been decided upon, although a tract of 60 acres near Wilmington (Del.) has been acquired with the object of erecting a modern plant for the construction of both gas and crude-oil engines. The officers recently elected at a meeting of stockholders at Philadelphia consist of Frank Salomon, president and general manager; Erich Krell, vice-president and treasurer, and E. A. Fischer, secretary.

Steam Shovels, Dredges and Kindred Equipment.

The Marion Shovel & Dredge Co., Marion, O., is introducing a new line of steam shovels, dredges and kindred equipment for excavation purposes. While this is a new company, with new shops and new equipment, the members of its organization have had long experience in the manufacture of machinery such as the company produces. The company states that it will not depart from well-tried lines in the manufacture of its equipment, but will eliminate, as far as its experience will enable, all weak points which have been troublesome in the past. John D. Owens is president of the company, Clifford A. Owens first vice-president, D. W. Evans second vice-president, George B. Christian, Jr., third vice-president, A. E. Cheney secretary and general manager, Geo. D. Copeland treasurer and H. J. Barnhart chief engineer.

Triumph Electric Machinery Sales.

The Triumph Electric Co. of Cincinnati advise that the demand for its machinery is continuing to such an extent that it has been necessary to have a night force of workmen during three nights of the week. A report of recent sales by the company just issued includes the following: Two 50-horsepower induction motors; 10 induction motors for knitting mill; 25 direct-current motors for window-glass factory; 75-kilowatt direct-connected generator for brick and tile company; 35 K. V. A. motor generating set; 100-kilowatt direct-connected generator and 50-kilowatt direct-connected generator for Missouri Pacific Railway; 75-kilowatt generator to Northwestern Electric Equipment Co.; 350 K. V. A. alternating-current belted generators for Otis Elevator Co.; 75-kilowatt direct-connected generator for hospital at Cincinnati; 150-horsepower induction motor; 36 induction motors; many smaller units and individual machines.

Indiana's Busiest, Happiest City.

As the metropolis of northwest Indiana and providing the municipal wants of a large and well-settled territory, Fort Wayne is described in a souvenir book, which is being distributed by numerous patrons, as "Indiana's busiest, happiest city." Fort Wayne is located on the main line of the Pennsylvania, Wabash, Nickel-Plate and Grand Rapids railroads, and is the terminal of three other steam lines. Its religious, social and educational advancement is marked, and by reason of its superior freight rates and other advantages it offers exceptional opportunities for the profitable establishment of industrial enterprises. Among its prominent manufacturing industries is the Fort Wayne Electric Works, and it is to this company that the Manufacturers Record is indebted for a copy of the souvenir book referred to. The publication is very attractive in its design and mechanical execution and presents many views of unusual merit.

Frick Company Machinery Sales.

During the past few weeks many sales of machinery have been effected by the Frick Company of Waynesboro, Pa. The shipments were to all parts of this country. They included the following large orders: 35-ton ice-making machinery at Palestine,

Tex.; 20-ton ice-making plant with freezing and distilling system at Goldsboro, N. C.; 35-ton improved flooded freezing system at Springfield, O.; 100-ton ice plant with compression and freezing and boiler system at Jacksonville, Fla.; 20-ton ice-making plant and other machinery at Elizabethtown, Pa.; 65-ton refrigerating machine and compression system at Batavia, N. Y.; 25-ton refrigerating machine and compression system at Tulsa, Okla.; 12-ton ice-making plant, distilling system, etc., at Lyons, Kans.; 20-ton refrigerating machine at St. Louis, etc. These are but a few of the Frick contracts, and it is of interest to note that the machinery was shipped to various kinds of industries, including ice plants, film factories, breweries, storage plants, liquor dealers, stock yards, confectionery manufacturers and others.

Cotton Mill Machinery

Cotton-mill managers realize the importance, as affecting satisfactory, efficient and profitable operation, of keeping the equipment of their plants in the best possible condition. A Southern company which claims the distinction of being one of the few companies in this country and the only one in the South engaged in manufacturing, overhauling and repairing cotton-mill machinery, is the Southern Spindle & Flyer Co., Charlotte, N. C. Prior to the establishment of this company members of its organization were engaged in England, and later in the North, manufacturing spindles and flyers and other cotton-mill machinery. Aside from its factory work its refitting and repairing trade is an important feature of the company's activities, and it has recently overhauled the equipment of several prominent Southern cotton mills. Among these were Lanett Cotton Mills, West Point, Ga.; Cohannet Cotton Mills, Fingerville, S. C.; Victoria Cotton Mills, Greens, S. C.; Tryon Manufacturing Co., Tryon, Ga.; Dresden Mills, Lumberton, N. C.; Roanoke Cotton Mills, Roanoke, N. C.; Trollinwood Cotton Mills, Hall River, N. C.; Long Island Cotton Mills, Long Island, N. C.

Twenty-five Years With Dodge.

In the February number of the Dodge Idea, a publication by the Dodge Manufacturing Co., Mishawaka, Ind., a full page was devoted to a report of the celebration of the 25th anniversary of President Melville W. Mix's connection with the company. Employed at first for general utility purposes, he later became shipping clerk. Wallace H. Dodge at that time was introducing the "Independence" wood split pulley, and because of trying situations he had to meet, regular paydays for his company were not known. His force of workmen, however, had faith and remained at work. When the New Orleans Exposition was announced the company shipped a carload of pulleys for sale and exhibition, and two millwrights and the shipping clerk accompanied Mr. Dodge to New Orleans. "Independence" pulleys made such a hit that a New Orleans agency was later established and prospects began to brighten. Mr. Mix was transferred to the sales end of the trade, and in 1890 the company established a Chicago branch and put him in charge. When the World's Fair was held in that city the New Orleans success of the company was duplicated fourfold, and a few years later Mr. Mix was called to Mishawaka as sales manager. In 1894 Mr. Dodge died, and Mr. Mix was unanimously elected by directors and stockholders of the company as president and general manager. Since then its trade has constantly increased, and the company is now recognized as among the greatest industries of its kind in the world. It is capitalized at \$2,500,000 and employs about 1200 workmen in the manufacture of power-transmission machinery which is known in all civilized communities.

TRADE LITERATURE.

Graphite.

Graphite, a publication in the interest of Dixon's graphite productions, has been issued for March by the Joseph Dixon Crucible Co., Jersey City, N. J. This publication is illustrated and contains interesting and timely data.

Doherty Gas Calorimeter.

As artificial gas of high-heating value is a potent agent in maintaining the good-will of the buying public, it is important that manufacturers of this product and those who handle it should be able to accurately determine its heating value. To accomplish this it is claimed that the Doherty gas calorimeter more fully meets the requirements than other devices for this purpose. This is a new device which is said to possess special advantages of simplicity, com-

pleteness, accuracy and reliability. It is manufactured by the Improved Equipment Co., main offices, 60 Wall St., New York, and is illustrated and described in a booklet which the company is distributing.

Implement Blue Book.

The Implement Blue Book for 1911, published by the Midland Publishing Co., Midland Bldg., St. Louis, is a compilation of the implements of agriculture, commerce, farmers' transportation vehicles, etc. This well-known annual is valuable as an index to the various implements listed, as well as an index to the firms manufacturing them.

The Universal for February.

For its February number the Universal Portland Cement Co., 115 Adams St., Chicago, has issued its monthly bulletin No. 81. This publication contains data showing the wide range of construction for which Portland cement is now being used, and presents interesting illustrations of various kinds of structures in which Universal Portland cement was employed.

The Edison Aggregate.

The Edison Aggregate for January-February is being distributed by the Edison Portland Cement Co., New Village, N. J. This company manufactures Edison Portland cement, and the publication referred to presents interesting illustrative and descriptive data relative to concrete-block construction of residences and other buildings in which Edison Portland cement was used.

Cement Sidewalk Paving.

An interesting treatise on cement sidewalk paving, with suggestions as to methods of construction, is presented in Vulcanite pamphlet No. 7, issued by the Vulcanite Portland Cement Co., Land Title Bldg., Philadelphia. This publication is illustrated and among other features contains a list of important sidewalks in various cities which have been laid with Vulcanite Portland cement.

The Harvester World.

The International Harvester Co. of America, Harvester Bldg., Chicago, has issued the Harvester World for February. This publication is in the interest of the company's employees and presents interesting illustrative and descriptive data relative to its agricultural machines and the methods of selling them. The company is also distributing a pamphlet entitled "The Romance of the Reaper," which presents an interesting sketch of the development of this machine.

The Agents' Bulletin.

As a medium for the interchange of ideas among its employees and for the dissemination of useful information and the distribution of advertising matter to its local agents, the Agents' Bulletin is regularly issued by the passenger traffic department of the Missouri Pacific Iron Mountain system, St. Louis. The February number of this publication is a special Hot Springs edition, and presents much information concerning that city, as well as other interesting illustrative and descriptive data.

The J-M Packing Expert.

The H. W. Johns-Manville Company of New York and other cities issues a monthly publication called the "J-M Packing Expert," which, it is stated, will be mailed free to anyone engaged or interested in work requiring packings made of lasting materials and highest workmanship. The February issue contains interesting references to the early origin of "self-moving wagons," Newton's steam car, Jenkins' "clockwork omnibus," etc., and details the present application of asbestos to the modern automobile.

Dupont Smokeless Shotgun Powder.

Among smokeless shotgun powders which have been introduced and used with satisfactory results in all parts of the world is the Dupont Smokeless. This powder is manufactured by the E. I. DuPont de Nemours Powder Co., Wilmington, Del., and by reason of the company's improved equipment and facilities for handling large quantities of raw material and finished product (using only the highest class of ingredients) is claimed to be superior to any similar powder heretofore manufactured and sold by the DuPont company. It is described in a pamphlet which the company has issued.

Havemeyer Reinforcing Bars.

The Concrete Steel Co., 29 Broadway, New York, has issued a pamphlet describing the construction and qualities of Havemeyer bars for reinforcing concrete. Illustrations are presented of various structures in which they are used and of tests to which they have been put. It is claimed that the metal

expanded at regular intervals along both the square and round rods gives holding power in the concrete without detracting from the sectional area for strength. Tables of sizes, sectional areas and weight per foot are given, and results of tests made for bond, for bending, and for strength are stated.

Hayward Buckets.

The Hayward Company, 50 Church St., New York, presents 15 views of handling and rehandling operations in which the Hayward orange-peel and clamshell buckets are in actual use in its circular No. 300. These views include canal excavating from floating derrick, from railroad derrick, transferring loads from scow to railroad car, from scow to stock pile, etc., and one shows the orange-peel bucket excavating a deep sewer trench and transferring the clay directly into wagon for removal.

Newman Clock Co.

The Newman Clock Co., 178 Fulton St., New York, manufacturer of the well-known Newman watchman's clock, has issued a folder showing a photograph of construction work on the Panama Canal and calling attention to the statement that the Newman watchman's time detector system was selected for use in connection with the canal work. It is stated in the folder that the warehouses along the canal are equipped with this system, and that the United States Government has been using this system for years in the Capitol, Navy-yards, forts, army posts and life-saving service.

Mack Gasoline Trucks.

Built in sizes of from two to seven-ton capacity, Mack gasoline trucks offer a wide range of service for commercial purposes. These trucks are manufactured by the Mack Bros. Motor Car Co. of Allentown, Pa., which also manufactures gasoline motor cars and busses for passenger lines, sight-seeing, pleasure resorts, hotels, etc. Mack cars and trucks are guaranteed against defective material and workmanship for a period of one year from date of shipment, to the extent that the company will replace defective parts under conditions which it presents in its guarantee. These cars and trucks are illustrated and described in catalogue No. 9, which the company is distributing.

J. W. Paxson Company.

The various wheelbarrows and trucks manufactured by the J. W. Paxson Company of Philadelphia are listed with prices and illustrated descriptions in that company's Bulletin 21. They comprise iron, steel and wood wheelbarrows; platform, barrel and bag trucks. The types of barrows are the Jackson foundry barrow; mining, coal or coke, pig barrow; pan tray, concrete or mortar, narrow gauge, two-wheeled coal or coke and charging barrows; Paxson sand barrow, contractors' wood barrow, National tubular barrows, open-hearth pig barrow, heavy bag trucks, barrel trucks, cargo truck, the Hercules self-loading hand truck and the Reynolds four-wheel truck with patent ball-bearing castors.

Burruss Engineering Co.

A folder of information for the oil-mill man has been issued by the Burruss Engineering Co. of Atlanta, with special reference to the Anderson expeller. In the folder it is stated that over 500 Anderson oil expellers have been built and are now running in all parts of the world, using the various oil-bearing nuts and seeds, and the sale of expellers is increasing. The advantages claimed for the expeller are uniform yield of oil; high quality of oil, cake and meal; simplicity and economical labor requirements; no press cloth used. The seed can be worked as it comes from the linters, or the meats only as they come from the separating machinery, and cold-pressed cakes can be made.

Harris Granite Quarries Co.

A "granite booklet" has been issued by the Harris Granite Quarries Co. of Salisbury, N. C., in which are treated considerations governing the choice of paving material for streets subjected to heavy traffic. It is intended to throw light on the subject of granite-block pavement in general, and upon Balfour dressed granite blocks in particular. Results of tests made at the U. S. Arsenal at Watertown are tabulated and the remarkably high compressive tests of 43,670 to 51,999 pounds per square inch for the Balfour quarry (Rowan county, North Carolina) are given. A photograph is shown of a pile of 500,000 Balfour dressed granite blocks for Chicago street use. This booklet will be of particular interest to granite users for the comparative study of granites and the general information it contains on the subject.

I. B. Davis & Son.

The Southern sales office of I. B. Davis & Son of Hartford, Conn., is located at 125 N. 4th St., Philadelphia, in charge of Thomas McAdoo, manager. This company manufactures the Berryman feed-water heater and purifier, regular and heavy-pressure types, and issues a comprehensive catalogue illustrating and describing the various types and sizes. The importance of supplying hot water to boilers, and especially when the water may be economically heated with the exhaust steam, is well established. The subject is fully treated in the catalogue. Other manufactures of this company include power pumps, condensers for ice plants, hot-water service heaters for hotel, laundry, swimming pool, lavatory and dyehouse service.

Ice Manufacturing Plants.

The advantages of the "can system" of manufacturing ice by the De La Vergne ice machines are stated in bulletin No. 109 of the De La Vergne Machine Co., foot of E. 138th St., New York. Illustrations of tank-rooms, ammonia compressors, ammonia condensers and diagrams of complete ice-manufacturing plants are shown, together with descriptions of each and information regarding proper treatment of water for ice-making. The advantages of the can system as noted in this bulletin are: Water from which ice is made may be previously prepared and its impurities eliminated; water once purified may be easily isolated and kept from subsequent contamination; ice may be made in any locality; hygienic ice, absolutely free from impurities, may be made in localities where hygienic water is not obtainable; first cost of "can-ice" plant is low. The diagrams and sectional drawings of modern and typical ice plants in this bulletin are particularly complete and interesting.

Robbins & Myers "Standard" Fans.

As it is desired that the pursuit of business or pleasure shall continue with equal efficiency and satisfaction in all conditions of weather, the proper selection and installation of cooling and ventilating equipment is receiving the same careful attention that has made modern heating systems so effective. The use of electric fans for cooling and ventilating has been adopted in all forms of commercial enterprise, the installation being regarded as an investment rather than an expense. So efficient and satisfactory have been their services for commercial purposes it is only natural that they should be regarded as a necessary adjunct to the equipment of modern homes, as the lines of electric service are extended to cover this field. Among important manufacturers of electric fans of various kinds is the Robbins & Myers Company, Springfield, O. This company manufactures Robbins & Myers "Standard" fans, and has issued catalogue No. 94, which illustrates and comprehensively describes them.

Fort Wayne Electric Works.

The fourth edition of Bulletin No. 1120 of the Fort Wayne Electric Works, Fort Wayne, Ind., and Madison, Wis., has been issued to meet the demand for type "A" electric rock-drill information. The rock-drill department of the works is located at Madison. Bulletin No. 1122 relates to small electric motors, with illustrations of various uses; No. 1123 describes the single-phase induction watt-hour meter with prepayment device. Bulletin No. 1126 is a complete exposition of Fort Wayne electric fans. It includes illustrations and descriptions of the many styles and sizes for all the various uses of electric fans, with various improvements in important details. Technical descriptions have been omitted, and only information enabling the customer to order what he wants is given in the catalogue. Additional information desired may be obtained from any of the various branch offices. A folder describing Ft. Wayne bell-ringing transformers and another folder dealing with sign and house lighting transformers have also been issued for general circulation.

To Develop Oklahoma's Water-Powers.

Anticipating the future, the Western Power & Irrigation Co. of Oklahoma City has recently organized with a capital stock of \$500,000 to develop the water-powers of Oklahoma and turn into legitimate channels of industry thousands of horse-power now unutilized. The company has located a closely-linked chain of power sites on the Washita River, in Western Oklahoma, and expects to develop a large aggregate horse-power for heat, light, power and irrigation purposes. It is stated that in the construction of the company's hydro-electric plants Ambursen hollow reinforced concrete dams will be built by the Ambursen Hydraulic Construction Co.

of Boston, while the Trump Manufacturing Co. of Springfield, O., will install Trump turbines equipped with hollow cushion. Electric equipment will be built and installed by the Westinghouse Electric & Manufacturing Co., Pittsburg. The Western Power & Irrigation Co. has issued an interesting prospectus outlining its organization and purposes.

OBITUARY.

Gideon F. Holmes Dead.

The Plymouth Cordage Co., North Plymouth, Mass., announces the death of its treasurer, Gideon F. Holmes, which occurred on January 21, 1911.

Over-Legislation.

Editor Manufacturers Record:

I read with much interest and approval the short article in your issue of January 19, by Wm. C. Seddon of Baltimore, regarding the "Railroad Problem." It is well to pause and ask whither are we drifting. It seems the country has gone mad over legislation and passing laws. Our Congress, and especially State Legislatures, are intent upon passing a great mass of laws, no matter what, just so a law is passed, and they seem never so content as when they legislate against railroads, manufacturing interests, etc., and so long as this spirit is shown in our National and State legislation, just so long will our industrial affairs suffer and be disturbed and the country in a state of unrest.

Mr. J. B. Cudlip of St. John, N. B., made a very significant statement in the *New York Journal of Commerce*. He is manager of a large cotton manufacturing company in St. John, N. B., and the people there, becoming very uneasy about the continuance of operations of his plants, asked him for an opinion regarding the situation. He said the Canadian situation was far from satisfactory, but much better than the United States, but that the railroad interests were in good shape, and so long as they continued to do well and keep everything going the people need not feel uneasy regarding the balance of things. Should we not pause and consider his statements?

In Canada they are not trying to legislate railroads and factories out of business, consequently they are building new railroads and developing their country rapidly. The old lines of railroads are doing well, and the Government is lending its aid.

Railroads are a fair barometer of trade. If they are doing well, there must be a fair amount of business going on. They employ a vast army of laborers and consume a vast amount of the products of other industrial enterprises, even to the farmer and landowner. They use his crossties and burn the coal from the mines. Their employees consume a large amount of the food products of the farmers. And what is true of the railroad is also true, more or less, to all other industrial enterprises. Why should not the Government do them justice in all legislation, toward them and our other industries, regarding labor laws, working hours, taxation, etc. Our legislators should not be too quick to pass laws, especially as so many of them are not very familiar with the exact situation of industrial affairs.

For the sake of our future peace and prosperity (industrially), I pray that legislation and agitation may cease in this country for the next few years to come. Amen.

M. W. DABBY.

Florence, Ala.

Apple Growing in Maryland.

During the past year the MANUFACTURERS RECORD has frequently referred to the progress of the apple-growing industry in the South. This progress has been notable in various States, and what has been ac-

complished is indicative of a further and more comprehensive growth in this branch of horticulture. A new and extensive development of land for the growing of apples has been undertaken at Green Ridge, Md., by Messrs. F. Mertens' Sons of Cumberland, and essential details of their enterprise have been stated to a representative of the MANUFACTURERS RECORD by H. S. Spang, who is connected with the firm. The Mertens' proposition involves the development of 22,000 acres of land for apple orchards, the property being located in the Green Ridge Valley, with shipping facilities afforded by the Western Maryland Railroad, the Baltimore & Ohio Railroad and the Chesapeake & Ohio Canal. Green Ridge Valley is in the Appalachian region of Maryland. It is in the eastern ridge of Allegany county, and occupies almost the entire area from Pennsylvania at the north to the Potomac River at the south, which marks the West Virginia boundary line.

The land is being divided into 10-acre orchards, which will be sold with five acres planted and five acres not planted, each orchard including a villa site and a business site in Green Ridge. The firm contracts to plant each orchard with two-year-old apple trees, allow them to bear during the fourth year and convey the land in bearing to the owner in the fifth year. Three varieties of the fruit will be planted, namely, Stayman Winesap, Grimes Golden and Jonathan. There are now 450 men engaged in clearing the land, which was heavily timbered. Planting and different kinds of work connected with the developments have been in progress for some months, and about \$650,000 has been expended. When the orchards begin to bear fruit it is proposed to organize an association, the president of which will be in charge of arrangements for marketing the crops so that the growers may obtain the best prices. In connection with this orchard development, F. Mertens' Sons are also developing the town of Green Ridge, where they have 1000 business building sites, 25x120 feet each, and 1000 villa sites 100x200 feet each. These developments necessitate the construction of many miles of modern highways, and a modern road system will be established, with each orchard accessible to it. This road system is estimated to cost \$2,000,000, and will include a 11-mile highway to the Pennsylvania State line, four miles of which has been completed.

The firm of F. Mertens' Sons is composed of Frederick, Wm. M., Henry F. and John H. Mertens. They are largely interested in the lumber business in Maryland, Pennsylvania and West Virginia, coal mines in Maryland and West Virginia, the Washington, Alexandria & Maryland Railroad Co. and other enterprises.

FINANCIAL NEWS

Review of the Baltimore Market.

Office MANUFACTURERS RECORD.

Baltimore, Md., March 1.

In the Baltimore stock market during the past week there was a fair amount of business. United Railways common sold from 17 $\frac{3}{4}$ to 17 $\frac{1}{2}$, with last sale at 17 $\frac{1}{2}$; do. trust certificates, 17 $\frac{1}{4}$ to 18, with last sale at 17 $\frac{1}{2}$; do. incomes from 62 to 62 $\frac{3}{8}$; do. funding 5s from 85 $\frac{1}{2}$ to 86, with last sale at 85 $\frac{3}{4}$; do. do. scrip, 86 to 85 $\frac{3}{4}$; United 4s, 84 $\frac{3}{4}$ to 84 $\frac{1}{2}$; Consolidated Gas, Electric Light & Power common, 87 to 92, with last sale at 91; do. preferred, 96 $\frac{1}{4}$ to 97; do. 4 $\frac{1}{2}$ s, 86 to 86 $\frac{1}{2}$; do. do. notes, 99 $\frac{1}{4}$; Consolidated Gas 4 $\frac{1}{2}$ s, 96 $\frac{1}{2}$; Seaboard Air Line common, 21 $\frac{1}{2}$; Seaboard Company common, 23 $\frac{3}{4}$ to 24, with last sale at 23 $\frac{1}{2}$; do. first preferred, 82; do. second preferred, 52 to 50 $\frac{1}{4}$, reacting to 52 $\frac{1}{2}$; do. 4s, 87; do. do. stamped, 87 to 87 $\frac{1}{2}$; do. 10-year 5s, 100 $\frac{1}{4}$; Mt. Vernon-Woodberry Cotton Duck 5s, 73 to

73 1/4; G. B. S. Brewing 4s, 45 to 46 1/2; United Light & Power 4 1/2s, 93.

Bank stocks sold as follows: Farmers and Merchants', 50; Mechanics', 29; Old Town, 2 1/4 to 13; Exchange, 163; Union, 132; Western, 39 1/2 to 40.

Mercantile Trust sold at 145; American Bonding, 78 to 79; Maryland Trust common, 84 to 85; do, preferred, 109; Continental Trust, 205; Maryland Casualty, 97 1/2; United States Fidelity & Guaranty, 107; Union Trust, 70 1/4 to 70; Fidelity & Deposit, 157.

Other securities were traded in thus: Atlantic Coast Line of Connecticut 5s, certificates, 104 1/2; Atlantic Coast Line consolidated 4s, 93 1/2 to 94; Alabama Consolidated Coal & Iron preferred, 63; do, 5s, 84 1/2 to 84 3/4; Fairmont & Clarksburg Traction 5s, 98 1/2 to 98 3/4; Northern Central Railway stock, 126 1/4 to 125; Carolina Power & Light 5s, 92 1/2; Houston Oil common, 8 1/2 to 8 3/4, with last sale at 8 1/2; do, preferred, 52 1/2 to 53, reacting to 52 1/2, and recovering to 54 1/4, with last sale at 54 1/2; Norfolk Railway & Light 5s, 99 1/2 to 99; Norfolk & Portsmouth Traction 5s, 85 1/2 to 86 1/2; Baltimore, Sparrows Point & Chesapeake 4 1/2s, 96; Baltimore Electric 5s, stamped, 91 1/4 to 91; Carolina Central 4s, 92; Georgia & Florida preferred, 20 1/2; Milwaukee Electric Railway & Light refunding 4 1/2s, 94 to 93 1/4; Knoxville Traction 5s, 103 1/2; Anacostia & Potomac 5s, 100 1/4 to 100 3/4; do, guaranteed, 103; Maryland Electric 5s, 97 1/2 to 97 3/4; Minneapolis Street Railway and St. Paul City Railway joint 5s, 104 1/2; Coal & Iron Railway 5s, 101 1/2; Atlantic Coast convertible debenture 4s, 97 to 97 1/2; Jamison Coal & Coke (George's Creek) 5s, 92 to 92 1/4; Virginia Electric Railway & Development 5s, 104; Baltimore City 3 1/2s, 1928, 94; Baltimore City Passenger 5s, 100 1/4; Consolidation Coal, 101 1/2 to 102; Macon, Dublin & Savannah 5s, 98; Atlanta Consolidated Street Railway 5s, 105; Baltimore Electric preferred, 41 to 40 3/4; Virginia Railway & Power common, 40 1/4; City & Suburban (Washington) 5s, 102 1/2; Norfolk & Atlantic Terminal 5s, 90; Baltimore City 3 1/2s, 1940, 94; Georgia, Carolina & Northern 5s, 105 1/2; Norfolk Railway & Light common, 25; Virginia Century, 80 1/2; Virginia Midland 5th, 106; Alabama Consolidated Coal & Iron common, 35; Merchants & Miners' Transportation Co., voting trust, 77 1/2; Georgia & Alabama Consolidated 5s, 104 1/2; Georgia & Florida 5s, 81 1/2.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended March 1, 1911.

Railroad Stocks.		Par.	Bid.
Atlantic Coast Line.....	100	119 1/2	121
Atlantic Coast of Conn.....	100	223 1/2	227 1/2
Charleston Consolidated.....	50	33	33
Fairmont & Clarks, Trac. Co.....	100	40	40
Georgia Sou. & Fla.....	100	40	40
Georgia Sou. & Fla. 2d Pfd.....	100	70	73
Maryland & Pennsylvania.....	100	21	22 1/2
Norfolk Railway & Light.....	25	24 1/2	25
Seaboard Co. Common.....	100	23 1/2	23 3/4
Seaboard Co. 1st Pfd.....	100	81	83
Seaboard Co. 2d Pfd.....	100	52	52 1/2
United Rys. & Elec. Co.....	50	17 1/2	17 1/2
Bank Stocks.		Par.	Bid.
Citizens.....	10	41 1/2	43
Commercial & Farmers.....	100	110	110
First National.....	100	145	150
Maryland.....	20	25 1/2	26
Merchants.....	100	184 1/2	185 1/2
Bank of Baltimore.....	100	151	153
Bank of Commerce.....	15	30 3/4	31 1/2
Exchange.....	100	162	163 1/2
Howard.....	10	13 1/2	14
Marine.....	30	42	42
Mechanics.....	10	28	29
Union.....	100	130	133
Old Town.....	10	12 1/2	13
Western.....	20	40	42 1/2
Trust, Fidelity and Casualty Stocks.		Par.	Bid.
American Bonding.....	25	78 1/2	79
Colonial Trust.....	50	91	92
Continental Trust.....	100	200	206
Fidelity & Deposit.....	50	158	158
Fidelity Trust.....	100	216	221
Maryland Trust.....	100	84	85
Maryland Trust Pfd.....	100	106	106
Maryland Casualty.....	25	97 1/2	97 1/2
Mercantile Trust & Deposit.....	50	144	145
Union Trust.....	50	70	70 1/4
U. S. Fidelity & Guaranty.....	100	165	167 1/2
Miscellaneous Stocks.		Par.	Bid.
Ala. Con. Coal & Iron.....	100	35	35
Ala. Con. Coal & Iron Pfd.....	100	61 1/2	63
Con. Cotton Duck Common.....	50	5	5 1/4
Con. Cotton Duck Pfd.....	50	20 1/2	20 1/2
Con. Gas, Elec. Lt. & P. Com.....	100	96	97
Con. Gas, Elec. Lt. & P. Pfd.....	100	101	102
Consolidation Coal.....	100	94	94 1/2
G. B. S. Brewing Co.....	100	75	77 1/2
Mer. & Miners' Trans. Co.....	100	75	77 1/2
Railroad Bonds.		Par.	Bid.
Atlantic Coast 1st 4s.....	100	93 1/4	94
Atlantic Coast Conv. Deben. 4s.....	100	97 1/4	97 1/4
At. Coast (Conn.) 4s, Cfs., 5-20s.....	92	92	94
Atlantic Coast (Conn.) 5s, Cfs.....	104 1/2	104 1/2	105
Atlantic Coast (S. C.) 4s.....	97 1/4	97 1/4	97 1/4
Balto. & Harrisburg 5s.....	107	109	109
Balto. & Harrisburg Ext. 5s.....	104	104	104
Carolina Central 4s.....	91 1/2	91 1/2	91 1/2
Coal & Coke Railway 5s.....	93	93	93
Coal & Iron Railway 5s.....	101	102	102
Col. & Green, 1st 6s.....	106 1/2	106 1/2	106 1/2
Georgia & Alabama 5s.....	104 1/2	105	105

Georgia & Florida 5s.....	81	82
Georgia, Car. & North, 1st 5s.....	105 1/2	105 1/2
Georgia Pacific 1st 6s.....	112 1/2	112 1/2
Georgia South. & Fla. 1st 5s.....	106	106 1/2
Macon, Dublin & Savannah 5s.....	97 1/2	98 1/2
Norfolk & Atlantic Term. 5s.....	89	90
Piedmont & Cumberland 1st 5s.....	100	100
Potomac Valley 1st 5s.....	106	106
Savannah, Fla. & West. 6s.....	126	126
Seaboard Air Line 4s.....	87	87 1/4
Seaboard 4s, Stamped.....	87	87 1/4
Seaboard 10-year 5s.....	100 1/2	100 1/2
Seaboard 3-year 5s.....	100	100 1/4
Seaboard & Roanoke 5s.....	106 1/2	106 1/2
Suffolk & Carolina 5s.....	98	99 1/2
Virginia Midland 5th 5s.....	100 1/2	100 1/2
Washington & Vandemere 4 1/2s.....	86 1/2	86 1/2
Western Maryland 4s.....	86 1/2	86 1/2
Western N. C. Con. 6s.....	105 1/2	105 1/2
West Va. Central 1st 6s.....	100 1/2	100 1/2
Wilmington & Weldon 5s.....	110 1/4	110 1/4
Street Railway Bonds.		
Anacostia & Potomac 5s.....	100 1/2	100 1/2
Anacostia & Potomac 5s, Gtd.....	102 1/2	103
Atlanta Con. Street Railway 5s.....	104 1/2	105 1/2
Baltimore City Passenger 5s.....	100 1/2	100 1/2
Baltimore City Passenger 4 1/2s.....	99 1/2	100
Baltimore, Sp. Pt. & C. 4 1/2s.....	95 1/2	96 1/2
Baltimore Traction (N. B.) 5s.....	110	110
Central Railway (Balto.) Ext. 5s.....	108	108
Charleston City Railway 5s.....	103 1/2	104 1/2
Charleston Con. Elec. 5s.....	85	85 1/2
City & Suburban 5s (Balto.).....	105 1/2	105 1/2
City & Suburban 5s (Wash.).....	102 1/2	102 1/2
Fairmont & Clarksburg Trac. 5s.....	98 1/2	99
Knoxville Traction 5s.....	104 1/2	105
Lake Roland Elevated 5s.....	108 1/2	108 1/2
Lexington Railway 1st 5s.....	89	92
Macon Railway & Light 5s.....	96 1/2	96 3/4
Maryland Electric Railways 5s.....	97 1/2	97 1/2
Memphis Street Railway 5s.....	97	97 1/2
Metropolitan 5s (Wash.).....	106	106 1/2
Norfolk & Portsmouth Trac. 5s.....	86	86 1/2
Norfolk Railway & Light 5s.....	99	99 1/2
Richmond Traction 5s.....	102	102
United Railways 1st 4s.....	84 1/2	84 1/2
United Railways Income 4s.....	62 1/2	62 1/2
United Railways Funding 5s.....	85 1/2	85 1/2
Miscellaneous Bonds.		
Ala. Con. Coal & Iron 5s.....	84 1/2	85
Baltimore Electric 5s, Stp.....	91	91 1/4
Consolidated Gas 5s.....	100	100 1/2
Consolidated Gas 4 1/2s.....	96 1/2	96 1/2
Con. Gas, Elec. Lt. & P. 4 1/2s.....	86	86 1/4
Con. Gas, Elec. Lt. & P. Notes.....	93 1/2	93 1/2
Fairmont Coal 1st 5s.....	97 1/2	97 1/2
G. B. S. Brewing 1st 4s.....	46 1/4	46 1/2
Mr. Vernon-Woodley's Cat. Duck 5s.....	73	73 1/2
United Elec. Lt. & P. 4 1/2s.....	92 1/2	93

SECURITIES AT BALTIMORE.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending February 27.

Bids.		Asked.
Abbeville Cotton Mills (S. C.).....	80	78
Alken Mfg. Co. (S. C.).....	100	100
American Spinning (S. C.).....	100	100
Anderson Cotton Mills (S. C.).....	100	100
Anderson Cot. Mills (S. C.) Pfd.....	100	100
Arcadia Mills (S. C.).....	95	95
Arkwright Cotton Mills (S. C.).....	95	100
Augusta Factory (Ga.).....	46	40
Avondale Mills (Ala.).....	116	116
Belton Mills (S. C.).....	130	138
Brandon Mills (S. C.).....	95	108
Brogton Mills (S. C.).....	90	90
Cannon Mfg. Co. (N. C.).....	135	135
Cabarrus Cotton Mills (N. C.).....	130	135
Chadwick Mfg. Co. (N. C.) Pfd.....	100	100
Chiquola Mfg. Co. (S. C.).....	170	170
Clifton Mfg. Co. (S. C.).....	85	85
Clinton Cotton Mills (S. C.).....	120	120
Columbus Mfg. Co. (Ga.).....	93	98
Courtney Mfg. Co. (S. C.).....	100	100
Dallas Mfg. Co. (Ala.).....	90	90
Darlington Mfg. Co. (S. C.).....	80	80
D. E. Converse Co. (S. C.).....	90	90
Drayton Mills (S. C.).....	95	100
Face & Phen Mfg. (Ga.).....	117	117
Fairley Cotton Mills (S. C.).....	165	165
Enoree Mfg. Co. (S. C.).....	60	65
Enoree Mfg. Co. (S. C.) Pfd.....	96	100
Enterprise Mfg. Co. (Ga.).....	80	85
Exposition Cotton Mills (Ga.).....	200	200
Gaffney Mfg. Co. (S. C.).....	67	72
Gainesville Cotton Mills (Ga.).....	72	80
Glenwood Cotton Mills (S. C.).....	150	150
Gluck Mills (S. C.).....	102	106
Granby Cot. Mills (S. C.) 1st Pfd.....	35	45
Granville Mfg. Co. (S. C.).....	155	155
Greenwood Cotton Mills (S. C.).....	57	60
Grendel Mills (S. C.).....	90	103
Hartsville Cotton Mill (S. C.).....	180	180
Henrietta Mills (N. C.).....	160	175
Inman Mills (S. C.).....	100	108
King Mfg. Co. J. P. (Ga.).....	90	93
Lancaster Cotton Mills (S. C.).....	130	130
Lancaster Cot. Mills (S. C.) Pfd.....	97	100
Langley Mfg. Co. (S. C.).....	120	127
Laurens Mills (S. C.).....	127	135
Lincolnton Mills (S. C.).....	155	160
Lockhart Mills (S. C.).....	65	68
Lockhart Mills (S. C.) Pfd.....	90	100
Loray Cotton Mills (N. C.) Pfd.....	95	97 1/2
Mariboro Cotton Mills (S. C.).....	75	80
Mills Mfg. Co. (S. C.).....	102	102
Molobon Mfg. Co. (S. C.).....	95	105
Monaghan Mills (S. C.).....	100	100
Monarch Cotton Mills (S. C.).....	106	106
Newberry Cotton Mills (S. C.).....	125	130
Ninety-Six Cotton Mills (S. C.).....	130	130
Norris Cotton Mills (S. C.).....	121	130
Olympia Cotton Mills (S. C.).....	90	90
Orr Cotton Mills (S. C.).....	95	95
Pacolet Mfg. Co. (S. C.).....	90	90
Pacolet Mfg. Co. (S. C.) Pfd.....	95	100
Peizer Mfg. Co. (S. C.).....	169	169
Piedmont Mfg. Co. (S. C.).....	175	177
Poe Mfg. Co. F. W. (S. C.).....	110	125
Saxon Mills (S. C.).....	130	130
Sibley Mfg. Co. (Ga.).....	71	78
Spargan Mills (S. C.).....	125	132
Trion Mfg. Co. (Ga.).....	310	320
Tucapau Mills (S. C.).....	74	80
Union-Buffalo (S. C.) 1st Pfd.....	16	16
Union-Buffalo (S. C.) 2d Pfd.....	115	120
Victor Mfg. Co. (S. C.).....	107	107
Warren Mfg. Co. (S. C.).....	106	110
Warren Mfg. Co. (S. C.) Pfd.....	106	110
Washington Mills (Va.).....	28	28
Washington Mills (Va.) Pfd.....	106	110
Whitcassett Mills (N. C.).....	110	110
Woodruff Cotton Mills (S. C.).....	135	135
Woodside Cotton Mills (S. C.).....	95	100
Watts Mills (S. C.).....	80	90
Williamston Mills (S. C.).....	120	125

FINANCIAL CORPORATIONS.

Ala., Birmingham.—The Realty & Guaranty Co. of Birmingham, capital \$2000, is reported to have filed articles of incorporation. Officers, J. H. Dean, president; R. H. Cantrell, vice-president; Eugene F. Enslen, treasurer; R. V. Evans, secretary.

Ark., Helena.—Official: The Phillips Abstract & Guaranty Co. incorporated; capital \$5000; A. G. Burke, president; L. E. Berard, vice-president, and Jas. G. Meyers, secretary. Business is to begin about July 1.

Ark., Lepanto.—Reported that the Bank of Lepanto will begin business March 1 with an authorized capital of \$20,000, with \$10,000 paid in. Officers, J. T. Lee, president; W. C. Dawson, vice-president; W. R. Payne, cashier. Directors, J. T. Lee, W. C. Dawson, Dr. J. M. Coppage, T. W. Robertson, Sam Savage, Geo. W. Nichols and Geo. Yeen.

Ark., Marmaduke.—A new bank, capitalized at \$25,000, is reported organized with Eli Melsner, president of the Bank of Commerce at Paragould, as president, and Wiley Lipcomb of Marmaduke, cashier.

Ark., Texarkana.—The Four States Life Insurance Co. of Texarkana is reported authorized to do business; authorized capital \$300,000. Officers, M. G. Caldwell, president; E. L. King, Frank Segar and W. M. Bloxham, vice-presidents; F. A. King, secretary; Putnam Dickinson, treasurer; R. W. Rodgers, general counsel.

Fla., Miami.—The Miami Land & Trust Co. has made application for a charter; capital \$500,000; B. B. Tatum, president; A. R. McLennan, vice-president, and T. H. Dunn, secretary and treasurer.

Ga., Augusta.—An official letter confirms report that efforts are being made to organize a new bank. Nothing definite determined as yet.

Ga., Crawford.—Official: The Athens Trust & Banking Co. chartered; capital \$100,000. Business is to begin May 1 with J. W. Griffin, president, Crawford, Ga.; R. H. McCarry, cashier; S. J. Tribble, Dr. E. H. Westbrook, L. C. Hart and S. Bernstein of Athens, and H. Lee Harvey of Atlanta, Ga.

Ga., Leesburg.—Reported that a movement is under way to organize a new bank.

Ga., Omega.—Reported that a new bank is being organized by O. P. Stubbs, L. M. Garrett, G. M. Robinson and Dr. I. Willis.

Ga., Waynesboro.—Official: The People's Savings Bank chartered; capital \$25,000; W. M. Fulcher, president; John L. Boyd, vice-president; Henry W. Blount, cashier; directors, W. M. Fulcher, John L. Boyd, John A. Blount, Gray Quinney, John S. McMurray, W. H. Dent and T. F. Buxton. Business is to begin about March 10.

La., Plaquemine.—The Avoyelles Bank & Trust Co., capital \$75,000, is reported to have begun business with directors thus: J. W. Jeffrion, president; F. A. Lemoine, first vice-president; M. O. Chenevert, second vice-president; C. C. Gaspard, cashier; F. M. Ryland, L. P. Roy, J. W. Gardener, J. C. Johnson, John L. Coco, F. P. Borden and E. A. Plancher.

Mo., Relsterstown.—Reported that a movement is under way to organize a national bank.

Mo., Seymour.—Official: The People's National Bank, succeeding the People's Bank (State), has been chartered; capital \$30,000; directors, R. C. Rhodes, J. A. Kanel, E. T. Smith, J. C. Peightel, W. J. Pratt, E. D. Onstott, Henry Hallauer, J. C. Preston, R. M. Chaffin and T. S. Bruton. Business began February 13.

Mo., St. Louis.—Official: The Security Title Co., 804 Chestnut St., incorporated; capital \$12,500. Business is to begin March 1 with directors thus: A. H. Frederick, John J. Dowling, C. M. McDonald, Arthur F. C. Blase, Gerald B. O'Reilly, Eugene D. O'Reilly, E. A. Bokern, Christ Stocke, Jas. P. Blake, Chas. Z. Trembley, Oron E. Scott and Geo. Boeck.

Mo., St. Louis.—Official: The Equitable Surety Co. incorporated; capital \$100,000; surplus \$250,000; directors, Adolphus Busch, W. K. Bixby, C. H. Huttig, Jos. D. Bascom, Edward Mallinkrodt, J. L. Humphrey, N. A. McMillan, H. C. Haarstick, T. H. West, A. T. West, B. F. Edwards, J. E. Smith, D. K. Catlin, D. C. Davis and Rolla Wells.

N. C., Landis.—Reported that a new bank is to be organized.

N. C., Monroe.—The Farmers and Merchants' Bank, capital \$50,00

M. Hall, Dr. Z. E. Danlei and J. A. Knight, who, it is said, will be cashier.

Tex., Krum.—Reported that the Farmers and Merchants' State Bank, which represents a combination of two State banks at that place, is reported to have filed its charter; incorporators, J. G. Wilkinson, A. H. Knox, Byron R. Smith, B. F. Wilson, W. Y. Barnett, J. H. Oates and R. L. Cole.

Tex., Kyle.—Official: The Kyle State Bank Incorporated; capital \$30,000; directors, Otto Groos, O. G. Parker, C. F. Heidenreich, M. G. Michaels and William Groos.

Tex., Malone.—The First State Bank, capital \$15,000, is reported incorporated by S. Q. Pierce, J. O. Good and Jeff H. Rogers.

Tex., Menard.—The First National Bank is reported to have made application for a charter; capital \$25,000; L. G. Callan of Menard, G. R. White, W. D. Crothers, J. T. Mann and O. L. McShan, organizers.

Tex., Sherman.—Official: The American Bank & Trust Co. is incorporated with \$100,000 capital, and business is expected to begin March 1; incorporators, W. C. Enbank of Sherman, president; D. S. Thompson of Van Alstyne, Tex., cashier; T. D. Joiner, R. Markham, T. U. Cole, C. B. Dorchester, J. L. Randolph of Sherman and Tom Randolph of St. Louis, Mo.; F. A. Batsell of Sherman and C. C. Bryant of Whitewright, Tex.

Tex., Texas City.—The First National Bank has, it is reported, been authorized to begin business; capital \$25,000. Scott Marshall, president, and A. B. Phillips, cashier.

Tex., Timpson.—The First State Bank of Timpson, capital \$10,000, is reported organized with Arch Knight cashier.

Tex., Waco.—The National Exchange Fire Insurance Co. of Waco is reported being organized with \$1,000,000 capital by Chas. A. Weathered and Gilbert Hay.

W. Va., Keyser.—Reported that a new bank is being organized with \$50,000 capital. Dr. Richard Gerstel is said to be interested.

W. Va., Warwood.—Press dispatches state that a new bank, capitalized at \$25,000, is being organized by Carl Ebbels of Loveland, Ky., and others.

NEW SECURITIES.

Ala., Albertville.—Reported voted: \$7000 of electric-plant bonds.

Ala., Boaz.—Bids will be received, it is reported, by R. E. Borroughs, City Clerk, until 1 P. M. March 1 for \$20,000 of 5 per cent. 30-year water-works bonds.

Ala., Huntsville.—Madison county is reported to have sold \$50,000 of 4½ per cent. refunding bonds.

Ala., Huntsville.—A. G. Smith, Mayor, writes that city is not contemplating the issuing of any bonds.

Ala., Wetumpka.—Reported voted: \$170,000 of Elmore county road bonds.

Ark., Fort Smith.—Bids will be received until March 15, it is stated, for \$550,000 of bonds. Address Commissioners of Water-works Improvement District No. 1.

Ark., Van Buren.—Official: William R. Compton Company, St. Louis, purchased \$175,000 of 6 per cent. Crawford county levee construction bonds; denomination \$500; dated February 2, 1911; maturity, serial after five years. E. L. Matlock is secretary.

Fla., Titusville.—Official: February 14 city voted \$30,000 of 5 per cent. 30-year water-works bonds. Date of opening bids not yet determined. Denomination will probably be \$500 or \$1000. Address City Council; B. R. Wilson, Mayor.

Ga., Americus.—Official: It is proposed to issue \$40,000 of sewerage extension and \$25,000 of water-works improvement bonds; date of election not yet decided. J. E. Matkiss is Mayor.

Ga., Barnesville.—Reported that an election will soon be called to vote on \$45,000 of school bonds.

Ga., Cartersville.—The question of holding an election to vote on sewerage and other improvement bonds is reported under consideration.

Ga., Griffin.—Official: The Georgia Mortgage & Trust Co., Atlanta, Ga., purchased on February 16 at \$295 premium and accrued interest the \$80,000 of 5 per cent. 25-year Spalding county courthouse bonds; denomination \$1000; dated December 1, 1910; maturity 1935.

Ga., Marietta.—May 1, it is reported, an election is to be held to vote on \$20,000 of electric-light and \$15,000 of sewer and water bonds.

Ga., Pelham.—An election is to be held, it is reported, to vote on \$25,000 of water, light, sewerage, city hall, fire department and jail improvement bonds.

Ga., Summerville, via Augusta.—March 30, it is stated, an election will be held to vote on \$75,000 of water-works extension, sewerage and street-improvement bonds.

Ga., Tooecon.—The Robinson-Humphrey Company of Atlanta is reported to have been awarded the \$26,000 of 5 per cent. 30-year school and sewerage bonds at \$561 premium.

Ky., Lexington.—Bids will be received by John Skain, Mayor, until noon March 2 for \$2117.02 of 6 per cent. 1-10-year Pratt Ave. improvement bonds.

La., Forest Hill.—Reported voted: \$20,000 of high-school bonds.

La., Lake Charles.—Official: Bids will be received until 8 P. M. March 11 for \$125,000 of 5 per cent. 40-year bonds of First Sewerage District. Address A. A. Wentz, secretary.

La., Many.—Reported that on March 28 an election is to be held in Sabine Literary and Agricultural School District, Sabine parish, to vote on building and improvement bonds.

La., Ruston.—Official: F. C. Fuller & Co., Cleveland, O., have purchased \$65,000 of 5 per cent. school-building bonds; denomination \$500; dated June 15, 1911; maturity June 15, 1912. L. J. Bell, Choudrant, La., is president School Board.

La., Shreveport.—Official: April 4 an election will be held to vote on \$250,000 of bonds. J. H. Eastham is Mayor and L. H. Baker Secretary-Treasurer.

Md., Centerville.—The Centerville National Bank at Centerville, according to press dispatches, purchased \$15,000 of 5 per cent. Queen Anne's county road equipment bonds.

Md., Easton.—Reported voted: \$40,000 of 4 per cent. 1-40-year sewer system construction bonds.

Miss., Aberdeen.—April 1, it is reported, an election is to be held to vote on \$50,000 of city hall, school building and street-paving bonds.

Miss., Greenwood.—The Bank of Le Flore and others are reported to have purchased at par \$24,000 of 6 per cent. Lake Henry drainage district bonds; denomination \$200; dated May 10, 1910; maturity part yearly from 1921 to 1930, inclusive.

Miss., Newton.—Reported that an election is to be called to vote on \$11,000 of electric-light bonds.

Miss., Rosedale.—Bollivar county is reported to have sold \$50,000 of 20-year road bonds.

Miss., Tupelo.—Steps are reported being taken to issue \$50,000 of city hall, water and paving bonds.

Mo., Tipton.—The William R. Compton Co., St. Louis, is reported to have been awarded at 100.10 the \$17,500 of 5 per cent. 20-year electric-light and power plant bonds.

N. C., Cherryville.—Reported that \$8000 of town-hall bonds are to be issued.

N. C., Fayetteville.—H. J. McBuie, City Clerk, will receive bids until noon March 20 for \$50,000 of 10-year street-paving and \$20,000 of 30-year water-works extension 5 per cent. bonds.

N. C., Durham.—Press dispatches state that bids will be opened March 25 for \$180,000 of 4½ per cent. 30-year bonds for funding floating debt.

N. C., Oxford.—Official: Bids will be received until noon March 8 for \$20,000 of school-building bonds; interest, 5 per cent. for 30-year bonds; 6 per cent. if 10-year bonds; dated January 15, 1911; maturity January 15, 1941, if 5 per cent; January 15, 1921, if 6 per cent; denomination \$1000 or \$500—buyers' option. Address J. P. Stedman, treasurer School Board.

N. C., Raleigh.—The Senate is reported to have passed a bill authorizing \$60,000 of bonds for school for feeble-minded.

N. C., Roxboro.—A. M. Burns, Town Clerk, will, it is reported, receive bids at any time for \$25,000 of 5 per cent. 30-year water and street bonds.

N. C., Rutherfordton.—Reported that \$35,000 of 5 per cent. 30-year water and light bonds are being offered for sale.

N. C., Rutherfordton.—Official: Bids are now being received for \$35,000 of 5 per cent. 30-year water and light bonds; denomination \$1000. O. T. Waldrop is Mayor.

N. C., Smithfield.—Reported voted: \$55,000 of electric-light, water and sewer bonds.

N. C., Wadesboro.—Anson county is reported considering the question of issuing \$300,000 of road bonds.

N. C., Washington.—Official: Bids will be opened March 8, 1911, by H. C. Carter, Jr., for \$15,000 of 5 per cent. 30-year refunding floating debt bonds; dated January 1, 1911; denomination \$100 to \$1000. W. B. Windley is City Clerk.

N. C., Waynesville.—Reported that \$32,000 of 5 per cent. 30-year water-works improvement and refunding bonds are being offered for sale.

N. C., Wentworth.—Official: The \$500,000 of Rockingham county road bonds have not as yet been authorized by the Legislature; Jas. T. Smith is clerk Supervisors' Court.

Okla., Altus.—Reported defeated: \$13,000 of Jackson county courthouse and jail bonds.

Okla., Alva.—Reported voted: \$10,000 of city hall bonds.

Okla., Heavener.—Official: R. J. Edwards, Oklahoma City, purchased the \$50,000 of 6 per cent. water-works bonds. G. M. Dailey is president Board of Trustees.

Okla., Lamont.—Official: Bids were opened on February 27 for \$20,000 of 25-year water-works bonds; denomination \$500. W. F. Porter is clerk.

Okla., Muskogee.—Official: A. F. McGarr, Mayor, or Charles Wheeler, Jr., will receive bids until March 6 for \$290,000 of water, \$225,000 of sewer and \$35,000 of garbage-disposal bonds; total \$650,000; denomination \$1000; dated March 1, 1911; maturity March 1, 1935.

Okla., Perry.—Official: C. D. Jensen, Clerk, will receive bids at any time for \$30,000 of 5 per cent. 20-year high-school bonds; denomination \$500; dated February 1, 1911.

Okla., Sapulpa.—Press dispatches state that Creek county has issued \$117,000 of refunding bonds, and that as soon as they have been passed upon by the county and attorney-general will be offered for sale by R. J. Edwards of Oklahoma City.

Okla., Tulsa.—A check is reported received from Seasongood & Meyer, Cincinnati, Ohio, for the purchase of the \$137,000 of bonds. The bonds brought a premium of \$500. L. J. Martin is Mayor.

S. C., Charleston.—Official: Guild & Co. have been awarded at par \$40,000 of sewerage bonds. J. O. Lea is City Treasurer.

S. C., Mullins.—J. Lee Platte, Mayor, is reported receiving bids for \$10,000 of 6 per cent. 5-10-year bonds.

S. C., Rock Hill.—Official: Bids will be received until 8 P. M. March 20 for \$285,000 of 5 per cent. 40-year bonds, as follows: Water, \$150,000; sewerage, \$100,000; light, \$35,000; denomination \$1000; dated January 1, 1911; maturity January 1, 1951. Address J. B. Johnson or John T. Roddey. E. L. Bonner is City Clerk.

S. C., St. Matthews.—Reported that an election will soon be held to vote on \$30,000 of Calhoun county courthouse and jail bonds.

S. C., Spartanburg.—An election will probably be held March 14, it is reported, to vote on \$50,000 of school bonds. H. E. Ravenel is secretary of the School Board.

S. C., Sumter.—Reported voted: \$25,000 of street-paving bonds.

Tenn., Camden.—Reported defeated: \$10,000 of college-building bonds.

Tenn., Chattanooga.—Bids will be received until 10 A. M. March 10 by T. C. Thompson, Mayor, for \$21,661.28 of 6 per cent District No. 141 paving bonds.

Tenn., Chattanooga.—Press dispatches state that the Legislature has authorized the issuing of city and Hamilton county bonds to the amount of \$2,100,000.

Tenn., Manchester.—Reported that \$25,000 of water and light bonds are to be issued.

Tenn., Nashville.—Bids will be received until 3 P. M. March 22, it is reported, for \$500,000 of 4½ per cent. 30-year sewer bonds. W. L. Murray is City Recorder.

Tenn., Nashville.—Press dispatches state that it is proposed to issue \$75,000 of market-house and \$100,000 of bridge bonds.

Tex., Alvin.—March 28, it is stated, an election is to be held in Brazoria county to vote on \$150,000 of bonds of road district No. 1, Brazoria county.

Tex., Archer City.—Reported that an election will probably be held to vote on bonds for water-works.

Tex., Anahuac.—Chambers county common school district No. 19 is reported to be offering for sale \$3500 of bonds.

Tex., Austin.—The Attorney-General has approved securities as follows: \$50,000 of 5 per cent. Greenville water-works bonds; \$20,000 of 4 per cent. 10-40-year Reagan county courthouse bonds; \$7000 of 5 per cent. 5-25-year Denton county school district No. 59 bonds; \$20,000 of 5 per cent. 5-25-year Reagan county common school district No. 59 bonds; \$18,000 of 5 per cent. 10-40-year Falls county bridge bonds.

Tex., Brady.—An election is to be held March 25, it is reported, to vote on \$75,000 of road bonds.

Tex., Bridgeport.—Reported that an election is to be held to vote on \$20,000 of school-building bonds.

Tex., Brookshire.—Reported that \$8000 of 5 per cent. 20-40-year Brookshire independent school district bonds are being offered for sale. Address V. M. Donigan, Brookshire.

Tex., Brownsville.—Official: March 14 an election is to be held to vote on \$80,000 of street, \$35,000 of water, \$15,000 of electric light, \$12,000 of city hall and \$3000 of slaughter pen 5 per cent. 20-40-year bonds; total, \$145,000; denomination, \$500. Benj. Konalski is Mayor.

Tex., Claude.—Reported that an election is to be held in Armstrong county May 6 to vote on \$60,000 of courthouse bonds.

Tex., Columbus.—An election is to be held in Colorado county March 7, it is reported, to vote on \$250,000 of road bonds.

Tex., Dallas.—Reported that the Board of Municipal Commissioners have been petitioned to call an election in April to vote on \$250,000 of school bonds. C. B. Gillespie is City Attorney.

Tex., Denison.—Reported that on March 11 an election is to be held to vote on \$20,000 of water-works, \$7000 of school and \$5000 of street-improvement bonds.

Tex., Denison.—Official: The State National Bank of Denison on February 23 purchased \$50,000 of 5 per cent. water-extension bonds; denomination \$500. Press dispatches say the bonds brought a premium of \$97.50.

Tex., Georgetown.—March 29, it is reported Granger-Bartlett Justice precinct, William son county, will vote on \$300,000 of road building bonds.

Tex., Hempstead.—April 1, it is reported, an election is to be held to vote on \$10,000 of bonds of Precinct No. 6, Waller county.

Tex., Kurten.—Reported voted: \$2000 of school-building bonds.

Tex., Liberty.—Liberty county is reported to be considering the question of issuing \$200,000 of road bonds.

Tex., Madisonville.—March 14, it is reported, an election is to be held to vote on \$18,000 of school-building bonds.

Tex., Menard.—Reported voted: \$20,000 of Menard county bridge construction bonds.

Tex., Nederland.—Official: District No. 7 has voted \$20,000 of school bonds. Address Fred Wood, secretary School Trustees.

Tex., Paris.—Reported that an election is to be held in Precinct No. 1, Lamar county, including city of Paris, within the next 90 days to vote on \$300,000 of 5 per cent. road bonds. T. J. Record is president of the Lamar County Good Roads Association.

Tex., Port Neches.—Official: Voted: \$20,000 of 5 per cent. 30-40-year common school district school-building bonds; denomination \$1000. Bonds have yet to be passed upon by the Attorney-General. D. A. Bibb is secretary school district No. 16.

Tex., Rockdale.—The question of issuing sewerage bonds is reported under consideration.

Tex., Rusk.—Official: Voted February 14: \$18,000 of 5 per cent. 20-40-year water-works construction bonds; denomination \$500; dated March 1, 1911. Date of opening bids not yet decided. W. H. Shoad is Mayor.

Tex., San Augustine.—Reported that bids will be received until March 21 by R. H. Hall, Mayor, for \$25,000 of 5 per cent. 20-40-year water-works bonds.

Tex., San Saba.—Reported that bids for \$75,000 of 5 per cent. 10-40-year San Saba county courthouse bonds are being offered by W. V. Dean, County Clerk.

Tex., Smithville.—Reported that an election is to be held April 4 to vote on \$3000 of bridge and street-improvement bonds.

Tex., Sweetwater.—Official: John J. Ford, County Judge, will accept bids at any time for \$100,000 of 5 per cent. 40-year bonds of Road District No. 1, Nolan county; dated February 13, 1911; denomination \$1000.

Tex., Trinity.—Official: No sale was made February 20 of the \$13,500 of 5 per cent. 10-20-year school bonds. J. Y. Renfro is secretary School Board.

Tex., Waco.—Official: Voted: \$250,000 of municipal electric-light-plant bonds. No further action is to be taken until the Waco Gas Co. is given the opportunity to make the city an offer for municipal and private lighting. Should a satisfactory agreement be reached the bonds will not be issued; otherwise, the usual course of advertising for bids will be followed. H. Mistrot is Mayor.

Tex., Waxahatchie.—Reported that on March

[For Additional Financial News, See See Page 90.]

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11 an election will be held to vote on \$15,000 of school bonds.

Tex., Waxahachie.—Official: Bids will be received until 2 P. M. March 10 for \$500,000 of 5 per cent. 10-40-year Ellis county road-district bonds; denomination \$1000. Address J. C. Lumpkins, County Judge.

Tex., Waxahachie.—An official letter says that \$25,000 of bonds of Drainage District No. 1, Ellis county, are sold. Press dispatches say the bonds were purchased by the Thomas J. Bolger Company of Chicago and the City Loan & Trust Co. of Gainesville.

Va., Crewe.—Robert A. Kean & Co., Chicago, are reported to have purchased the \$25,000 of 5 per cent. 20-year water and light bonds.

Va., Hampton.—Reported that bids are to be asked in March for \$14,000 of 5 per cent. Elizabeth City county bonds. H. H. Holt is clerk of the courts.

Va., Lebanon.—Official: Voted \$275,000 of Russell county permanent road-improvement bonds. A portion of this issue will be placed on the market within the next two or three weeks. S. H. Fletcher, cashier First National Bank, may be addressed.

Va., Norfolk.—Official: Bids will be received until noon March 23 for \$690,000 of 4½ per cent. 30-year improvement bonds as follows: Street, sewerage, drainage, school and other improvements, \$370,000; renewal, \$330,000. Address B. Gray Tunstall, City Treasurer. R. E. Steed is City Clerk.

Va., Radford.—J. D. Bird, City Clerk, is reported receiving bids for \$25,000 of street and courthouse improvements and \$17,000 of refunding and \$35,000 of school improvement 5 per cent. bonds; denomination \$1000; dated July 1, 1910; maturity July 1, 1940.

Va., Roanoke.—Official: February 28 an election is to be held to vote on \$400,000 of 4½ per cent. 30-year bonds, \$280,000 being for public building and \$120,000 for purchase of real estate; denomination \$1000; dated May 1, 1911.

Va., Tazewell.—Reported that the election to vote on Tazewell road-improvement bonds will be held April 11. Address County Judge.

W. Va., Morgantown.—The first Thursday in April, it is reported, an election is to be held to vote on \$60,000 of sewer and other improvement bonds.

W. Va., Parkersburg.—Reported voted: \$180,000 of 20-30-year Wood county road bonds. William Dudley is County Clerk.

W. Va., Wheeling.—The question of issuing bonds for filtration plant and improvement of gas works is reported under consideration.

At Norfolk, Va., bids will be received until noon March 23 for \$690,000 of 4½ per cent. 30-year bonds. Further particulars will be found in the advertising columns.

FINANCIAL NOTES.

The Virginia Bankers' Association will meet at Hot Springs June 15, 16 and 17.

Reported that the North Louisiana Bank at Gibsland, La., has been converted into the First National Bank of Gibsland.

The First State Bank of Carrollton, Tex., is reported to have filed an amendment to its charter increasing its capital from \$15,000 to \$20,000.

The Bank of Simpsonville at Simpsonville, S. C., according to press dispatches, has been authorized to increase its capital from \$15,000 to \$25,000.

The Commonwealth Bank of Richmond, Va., is reported to have voted to increase its capital from \$200,000 to \$300,000. H. L. Deaton is president.

The Citizens' Bank of Norton, Va., has, according to press reports, been merged with the First National Bank of Norton.

A condensed statement of 334 State banks in Mississippi at close of business February 1 shows loans and discounts, \$43,215,372; due from other banks, \$19,748,199; capital paid in, \$13,065,494; surplus, \$2,901,592; undivided profits, less expenses and taxes, \$1,317,969; individual and time certificates of deposit, \$62,274,636; due other banks, \$728,063; total resources, \$82,248,028.

A condensed statement of 238 State and private banks in South Carolina at close of business February 3 shows loans and discounts, \$47,862,765; due from banks and trust companies, \$9,343,036; capital stock paid in, \$10,711,539; surplus fund, \$3,516,726; undivided profits, less current expenses and taxes paid, \$2,117,916; due to banks and trust companies, \$1,273,312; individual deposits subject to check, \$26,378,772; savings deposits, \$16,085,612; demand and time certificates of deposit, \$3,656,584; total resources, \$96,087,349.

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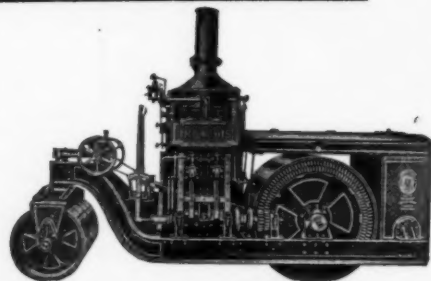
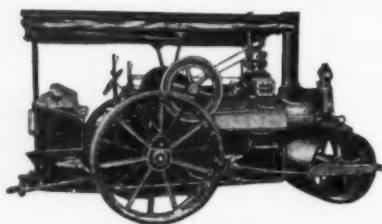
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